THE RELATION BETWEEN DISCLOSED AUDIT COMMITTEE EFFECTIVENESS VARIABLES AND THE EXTERNAL AUDIT OPINION EXPRESSED IN SOUTH AFRICAN CENTRAL GOVERNMENT DEPARTMENTS

by

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I declare that the above dissertation is my own work and that all the sources that I have used or quoted, have been indicated and acknowledged by means of complete references.

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DEDICATION

I dedicate this dissertation to my parents, Salome and Klaas Manamela for their prayers and words of wisdom. A special gratitude to my loving husband, Vusumuzi Frank Msiza for his continuous words of encouragement and holding my hand when I felt like giving up. My sister Nthabiseng Manamela and my children Lesedi, Dumisani and Nkosinathi for being my cheerleaders throughout this academic journey.

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ABSTRACT

Corporate governance failures raise questions by stakeholders seeking explanations why audit committees are failing to play their agency role effectively. The objective of this study was to determine the relation between 49 disclosed audit committee effectiveness variables based on King III Code recommended practices and the external audit opinion expressed in South African central government departments. Descriptive statistics highlighted variances in 14 variables across 93 departments. Categorical principal component analysis categorised the 14 variables into four factor variables and hypotheses. Multivariate ordinal logistic regression tested the hypotheses. Results suggest that disclosure of a higher number of variables was generally associated with a clean audit report, while the association between a higher number of disclosures regarding audit committee structure and profile variables and a clean audit report was significant. Improvements to National Treasury's disclosure templates and review of departmental managers' disclosures about audit committees in annual reports are recommended.

Keywords: audit committee effectiveness variables, corporate governance, external audit opinion, public sector

OPSOMMING

Gevalle van korporatiewe beheer mislukking laat vrae by belanghebbers ontstaan waarom ouditkomitees versuim om hul oorsigrol doeltreffend te vervul. Die doel van hierdie studie was om te bepaal watter verband daar bestaan tussen 49 vasgestelde ouditkomiteedoeltreffendheidsveranderlikes vervat in die aanbevole praktyke volgens die King III-kode en die eksterne ouditmening wat in sentrale staatsdepartemente in Suid-Afrika uitgepreek is. Beskrywende statistiek het variasies in 14 veranderlikes oor 93 departemente uitgewys. Kategoriesebeginsel-komponentontleding het die 14 veranderlikes in vier faktorveranderlikes en hipoteses gekategoriseer. Meerveranderlike ordinale logistieke regressie het die hipoteses getoets. Resultate toon dat openbaarmaking van 'n groter getal veranderlikes oor die algemeen verband hou met 'n skoon ouditverslag; en die verband tussen 'n groter getal openbaarmakings

betreffende ouditkomiteestruktuur- en profielveranderlikes en 'n skoon ouditverslag was beduidend. Verbeteringe aan Nasionale Tesourie se openbaarmakingstemplet en nasiening van departementele bestuurders se openbaarmakings rakende ouditkomitees in jaarverslae word aanbeveel.

Sleutelwoord: ouditkomiteedoeltreffendheidsveranderlikes, korporatiewe beheer, eksterne ouditmening, openbare sektor

SETSOPOLWA

Go palelwa ga ditshepedišo tšeo di latelwago go laola khamphani go dirile gore bengdithoto ba ipotšiše dipotšišo tše di nyakago ditlhalošo tša gore gobaneng dikomiti tša tlhakišo di šitwa go kgatha tema ya tšona ya bodiredi ka bokgoni. Maikemišetšo a thutelo ye e be e le go šupa tswalano gare ga mabaka ao a ka fetogago a go tliša katlego a 49 ao a utollotšwego a komiti ya tlhakišo go ya ka ditlwaelo tše di šišintšwego tša King III Code le maikutlo a tlhakišo ya ka ntle ao a filwego ke dikgoro tša mmušo wa gare tša Afrika Borwa. Dipalopalo tšeo di fago tlhalošo ya popego ya datha di bontšhitše phetogo go mabaka ao a ka fetogago a 14 ka go dikgoro tše 93. Tshekatsheko ya karolo ye kgolo ya tlhopho e hlophile mabaka ao a ka fetogago a 14 go ya ka mabaka ao a ka fetogago le ditlhalošo tše di šišintšwego tše nne. Mokgwa wa tshekatsheko ya go fetogafetoga ga didatha go ya ka tatelano goba kgetho o dirišitšwe go leka ditlhalošo tše di šišintšwego. Dipoelo di šišintše gore kutollo ya palo ya godingwna ya mabaka ao a ka fetogago ka kakaretšo e tswalane le maikutlo a tlhakišo ao a se nago bosodi, gomme tswalano gare ga palo ya godingwana ya dikutollo tša mabaka ao a ka fetogago a popego ya komiti ya tlhakišo le profaele le maikutlo ao a se nago bosodi e bile bohlokwa. Dikaonafatšo go mokgwatshepedišo wa kutollo wa Polokelo ya Bosetšhaba le tekolo ya dikutollo tša bolaodi ka ga dikomiti tša tlhakišo ka go dipego tša ngwaga ka ngwaga di a eletšwa.

Mareo a bolhokwa: mabaka ao a ka fetogago a phethagatošo a komiti ya tlhakišo, ditshepedišo tšeo di latelwago go laola khamphani, maikutlo a tlhakišo ya ka ntle, lefapha la setšhaba

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AC	Audit committee
AGSA	Auditor-General of South Africa
ASX	Australian Security Exchange
CATPCA	Categorical principal component analysis
CEO	Chief executive officer
CFO	Chief financial officer
FRC	United Kingdom Financial Reporting Council Code
IFRS	International Financial Reporting Standards
IODSA	Institute of Directors in Southern Africa
JSE	Johannesburg Stock Exchange
King I	First King Report
King II	Second King Report
King III	King Report on Governance for South Africa 2009
King III Code	King Code on Corporate Governance in South Africa 2009
King IV	King IV Report on Corporate Governance for South Africa 2016
MFMA	Municipal Finance Management Act No. 53 of 2003
PFMA	Public Finance Management Act No. 1 of 1999
PSACF	Public Sector Audit Committee Forum
RSA	Republic of South Africa
SPSS	Statistical Package for the Social Sciences

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Audit committees are a vital corporate governance mechanism. In South Africa, public and private sector legislation regulates the establishment and functioning of audit committees (RSA 2011a: Section 94(2)[1]; RSA 2003: Section 166; RSA 1999: Section 76(d)). An effective audit committee assists the board in discharging its oversight responsibilities of financial reporting and assurance processes implemented by management, thus ensuring the accountability of management to its stakeholders (Qasim 2017:87; Salehi & Shirazi 2016:1646; Madi, Ishakb & Manaf 2015:486; Bédard & Gendron 2010:175). National Treasury Regulations require an audit committee review and the King Code on Corporate Governance issued in 2009 (King III Code) recommends audit committee oversight of financial reporting and assurance processes and reporting on their discharge of those duties (IODSA 2009a: Principle 3.4-3.10; RSA 2005: Section 27.1.8). Ultimately, audit committee effectiveness is associated with financial reporting quality (Kibiya, Che-Ahmad & Amran 2016:126; Ghafran & O'Sullivan 2013:381; Lin & Hwang 2010:59) and the type of audit opinion expressed (Sun 2019:542).

Research supports the value of audit committee effectiveness for restoring the confidence of stakeholders in financial reporting and assurance processes. Financial reporting failures usually lead to stakeholders questioning the effectiveness of audit committees. "Where were the audit committee/auditors?" is the question that often follows after a scandal is exposed. Stakeholders seek answers for the shortcomings resulting from such scandals (Shbeilat 2014:542; Ghafran & O'Sullivan 2013:381); for example, the numerous corporate failures witnessed around the world (Qasim 2017:87; Salehi & Shirazi 2016:1646; Kang, Kilgore & Wright 2011:623; Bédard & Gendron 2010:175; Klein 2002:378).

In South Africa, major financial reporting and assurance process failures, for example, the African Bank, Steinhoff and VBS Mutual bank (Venda Building Society), saw

[1] Companies Act 71 of 2008 as amended in 2011

stakeholders losing their investments (Rossouw & Styan 2019:163, Khumalo 2018:1; Donnelly 2016:1), which resulted from corporate governance failures in the private sector. In the public sector, about 166 fraud and corruption cases involving amounts between R70 000 – R2.1 billion were reported in the state-owned entities such as Transnet, Eskom and the South African Social Security Agency. As a result of the fraud and corruption reported in the state-owned entities, a state capture enquiry was established to investigate, among others, the possible failures in the corporate governance structures (Bhorat, Buthelezi, Chipkin & Peter 2017:14).

South Africa has anti-corruption laws in place (the Prevention and Combatting of Corrupt Activities Act No. 12 of 1994, the Prevention of Organised Crime Act No. 121 of 1998; the Competition Act No. 89 of 1998), yet these laws did not prevent the incidences of corruption. There are still numerous cases of fraud and corruption not reported as a result of poor corporate governance (Moyo 2010:102). The Corruption Perception Index (CPI) by Transparency International, which measures the level of public sector corruption worldwide, found that Nigeria and South Africa were among countries with serious corruption activities in 2015 (Transparency International 2015:17). From the CPI, it is thus clear that the mere establishment of audit committees does not improve corporate governance as expected. Subsequent reports by the CPI has indicated that the level of corruption in South Africa has worsened from 2015 to 2019 (Transparency International 2019:2; Transparency International 2018:2; Transparency International 2017:1; Transparency International 2016:4). The literature finds that having an effective audit committee is the primary corporate governance mechanism contributing to the quality of financial reporting and assurance processes (Qasim 2017:87; Salehi & Shirazi 2016:1646; Madi, Ishakb & Manaf 2015:486; Bedard & Gendron 2010:175). As such, an effective audit committee should ensure an unqualified opinion with no findings is expressed by the external audit.

1.1.1 Audit committees in South Africa

In South Africa, the Companies Act No. 71 of 2008 mandates the establishment of an audit committee in every state-owned and listed company (RSA 2011a: Section 94(2)). In the public sector, legislation also enforces the establishment of an audit committee in the central and local government (RSA 2003: Section 166; RSA 1999: Section

76(d)). According to the National Treasury regulations and the Public Finance Management Act No. 1 of 1999 (PFMA), the audit committee may be shared by two or more departments or institutions (RSA 2005: Section 27.1.2; RSA 1999: Section 77(c)).

The Institute of Directors in Southern Africa (IODSA) has been issuing the King reports on corporate governance since 1994 (IODSA 1994: no page number). These reports were issued in response to the change in the South African political and business environment (Vaughn & Ryan 2006:506; Rossouw, Van der Watt & Malan 2002; IODSA 1994:43). The King Committee was requested to consider and recommend a "Code of Practice on financial aspects of corporate governance in South Africa" (IODSA 1994:43), and was established to promote the highest standards of corporate governance in South Africa, in the interest of stakeholders (Vaughn & Ryan 2006:506; Rossouw et al. 2002:299; IODSA 1994: no page number). The King reports are structured in such a way to address the accountability and responsibilities of those charged with governance in relation to the auditing and accounting environment. These recommendations are established to reduce the agency problems between the stakeholders and management by encouraging disclosure of information.

The IODSA published the King Code embedded in the King Report issued in 1994 (IODSA 1994), 2002 (IODSA 2002), 2009 (IODSA 2009) and 2016 (IODSA 2016). Each King report was issued to improve the overall corporate governance guidance in South Africa. The King Report on Corporate Governance (King I) adopted the 'stakeholders' approach (Rossouw 2005:98; IODSA 2002:7) and includes a "Code of Corporate Practices and Conduct", recommending that all stakeholders be involved in corporate governance (Afolab 2015:15; IODSA 1994:no page number). The main principles in King I recommended the composition, role and responsibilities of the board of directors (non-executive) (Afolab 2015:15; Kakabadse & Korac-Kakabadse 2001:310). The King Report on Corporate Governance (King II) was an update on King I, addressing the changes in the South African environment because of the adoption of a new Constitution (Moyo 2010:42; Moloi 2008:54). New sections were added in King II, addressing the roles and responsibilities of the board and directors, risk management, internal audit, sustainability reporting, accountability and auditing (Afolab 2015:12; IODSA 2002; Kakabadse & Korac-Kakabadse 2001:310-311). King

II adopted a ‘comply or explain’ approach, meaning that organisations had to either comply or explain a lack of compliance to King II (Vaughn & Ryan 2006:506). King II set out the principles with which all companies should comply or explain in combination with statutes, regulations and authoritative directives, the conduct of companies, boards and directors.

In September 2009, King Report on Corporate Governance for South Africa (King III) and the King III Code were issued, applicable from March 2010 (IODSA 2009a:3). King III Code was issued because of the new Companies Act of 2008, and changes in the international corporate governance trends (IODSA 2009a:4). The King III Code was more of a framework, which only provided a summary of principles and recommended practices, while King III provided more details on the principles. In order to address the change in principles, the King III and the King III Code moved from the ‘comply or explain approach’ to a ‘principle-based apply or explain’ approach (Afolab 2015:15; IODSA 2009a:7). According to King III Code, apply or explain means that “the board could decide to apply the recommendation differently or apply another practice and still achieve the objective of the overarching corporate governance principles of fairness, accountability, responsibility and transparency. Explaining how the principles and recommendations were applied, or if not applied, the reasons, results in compliance” (IODSA 2009a:6). Organisations should thus explain their compliance with the King III Code by disclosing how the principle was applied, or explain why the principle was not applied (Afolab 2015:15). Thus, detailed disclosure is important as it allows stakeholders an opportunity to understand how the organisation has applied the recommendations of the King III Code.

The current King IV Report on Corporate Governance (King IV) was issued on 1 November 2016, applicable from 1 April 2017 (IODSA 2016:38). King IV sets out the “philosophy, principles, practices, and outcomes, which serve as the benchmark for corporate governance in South Africa” (IODSA 2016:20). King IV applies to all entities regardless of their size or business environment (IODSA 2016:6). Uniquely, King IV makes reference to organisations and governing bodies instead of companies and boards of directors (IODSA 2016:6). In order for King IV to be understood by all organisations, sector supplements were introduced. King IV moved from the ‘apply or explain’ to the ‘apply and explain’ approach (IODSA 2016:27). Principles were also

reduced from 75 in King III to 17 basic principles in King IV, with 16 of these being applicable to all organisations (IODSA 2016:7). Applying all the principles in the King codes is a prerequisite for claiming that good corporate is being practised (IODSA 2016:7). Thus, every principle is equally important as the principles in combination form a 'holistic approach to governance' (IODSA 2009a:16). Organisations are therefore expected to disclose to their stakeholders whether they have applied – and explain how they have applied – the principles of King IV. This study used the principles and recommended practices in the King III Code (IODSA 2009a) as audit committee effectiveness variables as those applied to the annual reports for the 2014/15 financial year; the latter constitute the publicly available data employed by this study.

The King reports may apply on a voluntary basis, as a leading practice or statutory requirement (IODSA 2016:35). For instance, the Johannesburg Stock Exchange (JSE) requires all South African listed companies to comply with the recommendations of the King reports (JSE 2014: Section 7.F.5). The South African public sector may comply with the recommendations and principles of the King reports on a voluntary basis; however, some of the governance principles have been legislated in parallel with the King Code (IODSA 2016:35). In instances where legislation and the King reports differ, the law takes preference (IODSA 2016:35). For the purposes of this study, the absence of disclosures or explanations in annual reports in terms of King III Code principles is considered.

The South African King reports and codes are regarded as corporate governance best practice by many scholars (Coetzee & Msiza 2018:89; Atkins, Solomon, Norton & Joseph 2015:30). In their study, Coetzee and Erasmus (2019:7) referred to King III as the "best practice of its time". To enhance audit committee effectiveness, the audit committee should adopt good governance practices such as the King Report principles (Morgan 2010:96). Audit committees' performance could be improved by comparing their practices with those of other audit committees and good business practices (Morgan 2010:96).

Turning to the South African public sector, legislation, including National Treasury Regulations, incorporate only 44.7% of the recommended practices mentioned in the

King III Code dealing with audit committees (Coetzee & Erasmus 2019:7). It is therefore clear that the King III Code (IODSA 2009a) contains more detailed recommendations about audit committees than the public sector legislation. However, it can be argued that King III was issued 10 years after the PFMA was promulgated and four years after the National Treasury Regulations were last amended. Not all principles in the King reports are included in public sector legislation are applicable to public sector organisations. For instance, the King III Code states in principle 3.4 that the audit committee should oversee integrated reporting (IODSA 2009a) and in principle 3.9 that the audit committee is responsible for recommending the appointment of the external auditor (IODSA 2009a: Recommended practice 3.9.1). However, in the central government departments (in this study, this term is used when referring to the national and provincial government departments as a unit), integrated reporting is not a legislated requirement, and legislation stipulates that the Auditor-General of South Africa (AGSA) should perform external audits (RSA 2018: Chapter 2 (4)(1)).

1.1.2 Challenges faced by South African public sector audit committees

Despite the existence of the King III Code best practice principles and legislation prescribing the establishment and functioning of audit committees, the South African public sector is still faced with numerous scandals and challenges resulting from corruption and bribery (Afolabi 2015:10). The South African Public Sector Audit Committee Forum (PSACF) alleged legislation and regulatory requirements are not always clear in defining the requirements for audit committees in relation to the public sector environment (PSACF 2014:7).

Some of the problems highlighted by the forum include that responsibilities for the appointment of and the reporting lines of audit committees are vague. In some cases, audit committees are appointed by the accounting officers, and in others, the ministers are also involved; this creates confusion about the reporting lines of audit committees (PSACF 2014:7). The composition of the audit committee has also been regarded as one of the challenges faced by public sector audit committees. For instance, the independence of the audit committee may be compromised due to past and present alliances of members (PSACF 2014:8). The shortage of members with appropriate

knowledge, skills and experience to serve on public sector audit committees was another challenge (PSACF 2014:8). Furthermore, some audit committee members lack adequate commitment and dedication in preparing for meetings (PSACF 2014:8). In addition, management adds to the dilemmas faced by audit committees in the public sector, due to the absence of quality information being made available to them, making it difficult for audit committees to fulfil their duties (PSACF 2014:8). The challenges faced by the public sector audit committees result in these committees being ineffective (Dintwe 2016:228).

Few studies have been conducted in South Africa on audit committees' effectiveness and related disclosures in annual reports. For instance, in the private sector, Marx (2009:31) found that reporting on the responsibilities performed by the audit committee was of a poor standard in the annual reports and did not reflect that the audit committees were discharging their duties. Similarly, Moloi (2015:67) found that disclosure in the annual reports lacked transparency regarding the role of audit committees in the South African national government departments. Van Der Nest (2008:545) found that the majority of audit committees in the South African public sector were not perceived as ineffective. However, accounting officers and audit committee chairpersons perceived that audit committees could perform certain key functions more effectively (van der Nest 2008:556). None of these studies considered the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed. This study addresses this gap in knowledge.

1.1.3 External audit opinions and financial reporting quality in South African public sector

In the South African public sector, the AGSA has a sole mandate to audit the public sector, however, audits may be outsourced to private auditing firms (AGSA 2018:123). The AGSA (2019:1) described the objective of an audit of financial statements as "to express an audit opinion on whether the financial statements fairly present the financial position of auditees at financial year-end and the results of their operations for that financial year". The AGSA could express any of the following types of audit opinions: an unqualified opinion with no findings; an unqualified opinion with findings; a qualified opinion; an adverse audit opinion, or a disclaimer of audit opinion. "An

unqualified opinion with no findings means that the financial statements are free from material misstatements (in other words, a financially unqualified audit opinion) and there are no material findings on reporting on performance objectives or non-compliance with legislation" (AGSA 2019:1). In laymen's terms, an unqualified opinion with no findings means "that everything is correct" (Ngoepe & Ngulube 2016:894). An unqualified opinion with no findings is also referred to as a "clean audit outcome", or an "unmodified audit opinion with no findings" (Ngoepe & Ngulube 2016:894; AGSA 2015a:26). According to Kamolsakulchai (2015:328), unqualified audit opinion "indicates that financial reporting was prepared according to generally accepted accounting standards", implying that the higher the financial reporting quality, the greater the likelihood for an organisation to obtain an unqualified audit opinion.

An unqualified opinion with findings means that "the financial statements contain no material misstatements. However, findings have been raised on either reporting on predetermined objectives or non-compliance with legislation, or both these aspects" (AGSA 2019:1). An unqualified opinion with no findings is also referred to as a financially unqualified opinion with findings, an unmodified audit opinion with findings, or an unqualified opinion with an emphasis of matter (Ngoepe & Ngulube 2016:894; AGSA 2015a:26). From this definition, one can conclude that an unqualified opinion with no findings implies that financial reporting quality is high and public funds were managed properly. Thus, it is the goal of any government department to obtain an unqualified opinion with no findings.

A qualified audit opinion is defined as "the financial statements contain material misstatements in specific amounts, or there is insufficient evidence to conclude that specific amounts included in the financial statements are not materially misstated" (AGSA 2019:1). A qualified audit opinion is also referred to as a modified audit opinion. An adverse audit opinion refers to "financial statements that contain material misstatements that are not confined to specific amounts, or the misstatements represent a substantial portion of the financial statements" (AGSA 2019:1), and indicates that the auditors had a disagreement with management about the fair presentation of the financial statements (Ngoepe & Ngulube 2016:894). Disclaimer of audit opinion means that "the auditee provided insufficient evidence in the form of documentation on which to base an audit opinion. The lack of sufficient evidence is

not confined to specific amounts, or represents a substantial portion of the information contained in the financial statements" (AGSA 2019:1). A disclaimer of audit opinion is thus an indication of a lack of supporting audit evidence to the extent that the auditors are unable to make a reasonable conclusion of material matters (Ngoepe & Ngulube 2016:894). It is critical for the public sector to ensure that it avoids qualified, adverse and disclaimer audit opinions so that it might not damage stakeholders' confidence, since these types of audit opinions may indicate mismanagement of public funds and poor financial reporting quality.

According to Ngoepe and Ngulube (2016:892), an audit opinion enhances the integrity of the financial statements but does not guarantee future viability, efficiency or effectiveness of the management process. Thus, an unqualified opinion with no findings does not mean that there are no issues in the organisation but merely indicates fair presentation in all material respects of the organisation's financial performance and position. The audit opinion has been used to address hypotheses in many studies (Kamolsakulchai 2015:331; Omid 2015:50; Pucheta-Martínez & García-Meca 2014:347). For the purpose of this study, the five types of audit opinions discussed above served as dependent variables, as these are proxies of the financial reporting quality achieved through audit committee effectiveness (Sun 2019:542; Kibiya, Che-Ahmad & Amran 2016:126; Ghafran & O'Sullivan 2013:381; Lin & Hwang 2010:59).

There is growing literature embracing the positive relationship between financial reporting quality and the external audit opinion, indicating that a higher quality of financial reports increases the likelihood of the organisation receiving an unqualified audit opinion (Omid 2015:46; Pucheta-Martínez & García-Meca 2014:347). However, most of these studies were conducted in the private sector with limited research in the public sector. Studies that were conducted in the South African public sector primarily focused on audit committee effectiveness (Motubatse 2018:533; Motubatse & Mashele 2018:593; Dintwe 2016:217; Marx 2009:31). These studies did not examine the relation between audit committee effectiveness variables and the external audit opinion expressed. This study addresses this gap in knowledge.

1.2 PROBLEM STATEMENT

Legislation and corporate governance principles enforce and/or recommend the establishment and functioning of audit committees. However, it appears that audit committees within the South African central government departments do not contribute as expected to corporate governance aspects such as risk management, internal controls and quality financial reporting, to name a few. Evidence of the latter is in the 2015 Global Competitiveness Index, which finds South Africa 89th out of 144 countries in relation to the wastefulness of government spending (Schwab 2015:23). This indicates transgressions of applicable legislation, including the PFMA and the National Treasury Regulations (Schwab 2015:23). In the 2016-17 financial year, South Africa was ranked 88th out of 138 countries, reflecting the countries' relative regress in the extent of wasteful government spending (Scwab 2018:325). Similarly, South Africa's position worsened further in 2019, evident by ranking 103rd out of 138 countries for the efficiency of government spending (Schwab 2019:269).

In contrast to the increasing trend in wasteful and inefficient government spending highlighted by the Global Competitiveness Indexes from 2015 to 2019, the central government departments' audit outcomes improved in the 2014/15 financial year as presented in the AGSA reports. The AGSA was of the opinion that audit committees were the key contributors to improved audit opinions (AGSA 2015a:28). For example, the AGSA cited that audit committees' oversight contributed to the adequacy, reliability and accuracy of the financial and performance information used by other role players, e.g. internal audit, accounting officers, senior management, and executive authorities, which contributed to improved audits (AGSA 2015d:109-110).

The AGSA assessed that audit committees had a positive impact on audit outcomes for approximately 65% of auditees (central government departments and public entities), over the period 2013/14-2016/17 (AGSA 2017:147). This is reflected in the fact that only 29% (47 of 163) of the central government departments obtained unqualified opinion with no findings for the 2014/15 financial period. As highlighted in the previous section, there is a gap in knowledge about the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in South African central government departments. Considering the vital role of the audit

committee in overseeing financial reporting and assurance processes, and the link between financial reporting quality and the external audit opinion expressed, this study addresses the following research problem:

> *The relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in South African central government departments is unclear.*

1.3 RESEARCH AIM, OBJECTIVES AND HYPOTHESES

The *aim* of this study was to determine the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in South African central government departments. In order to operationalise this aim, the primary and secondary *objectives* of this study were:

Primary objective:

1. To determine the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in the South African central government departments.

Secondary objectives:

1. To analyse the King III Code for variables associated with audit committee effectiveness.
2. To analyse annual reports of central government departments for the disclosure or non-disclosure of variables associated with audit committee effectiveness (as identified in secondary objective 1).

As explained in Section 4.2.1, the following four *hypotheses* were used for further data analysis (categorical principal component analysis (CATPCA)) when measuring the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed:

H_1 There is a positive association between AC[2] statutory reporting oversight and an unqualified opinion with no findings.

H_2 There is a positive association between AC risk and control oversight and an unqualified opinion with no findings.

H_3 There is a positive association between AC assurance effectiveness oversight and an unqualified opinion with no findings.

H_4 There is a positive association between AC structure and profile and an unqualified opinion with no findings.

1.4 IMPORTANCE OF THE STUDY

As discussed in Section 1.1, there is limited research on the relation between disclosed audit committee effectiveness variables and the external audit opinion (dependent variable) expressed in the South African central government departments. The study contributes to this body of knowledge. The results of this study should be of interest to public sector audit committees, the public sector audit committee forum and the National Treasury as they each play a key role in audit committee effectiveness. This study builds on previous research that reported an effective audit committee is associated with higher financial reporting quality (Kibiya, Che-Ahmad & Amran 2016:126; Ghafran & O'Sullivan 2013:381; Lin & Hwang 2010:59), and higher financial reporting quality is associated with an unqualified audit opinion (Sun 2019:542; Kamolsakulchai 2015:328). However, Sun (2019:542) did not make a distinction between different types of unqualified audit opinions. This study therefore focuses on unqualified opinions with no findings. The disclosure on audit committees' activities is critical in providing the users of the annual reports with an understanding of what the audit committees were actually doing, and whether they were doing what was expected of them or doing more. Furthermore, the application of all the principles in the King reports and codes is critical when claiming good corporate governance is

[2] The abbreviation AC for audit committee was used when referring to research hypotheses, audit committee variables, factors and related discussion.

being practised (IODSA 2016:7). Thus, complete disclosure of audit committees' characteristics and oversight of financial reporting and assurance processes enhances stakeholders' confidence in the effectiveness of audit committees as corporate governance mechanisms.

1.5 DELIMITATIONS

This study is confined to the public sector, specifically the audit committees of the South African central government departments. The primary objective of this study was to determine the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in South African central government departments. The study analysed the annual reports of departments for the disclosure and non-disclosure of audit committee effectiveness variables, as identified in the King III Code (IODSA 2009a: Principle 3.1-3.10). This study sampled all the national government departments (38) and 55 provincial departments selected from four provinces: Gauteng, Limpopo, North West and Western Cape. The annual reports for the 2014-15 financial year were analysed, being the latest available annual reports at the time when the analysis was done at the inception of the study.

Only chapter 3 of the King III Code was analysed for principles and recommended practices containing audit committee effectiveness variables. The King III Code was the applicable corporate governance code when the study commenced in 2016. Adherence to the King III Code is not mandatory for the South African central government departments, thus non-disclosure of audit committee effectiveness variables does not necessarily imply non-compliance with laws and regulations. The disclosure of some King III Code audit committee effectiveness variables will be an indication of voluntary disclosure by the department. Moreover, some King III Code audit committee effectiveness variables are subsumed in legislation (IODSA 2016:35).

1.6 DEFINITION OF KEY TERMS

Accounting officer:

(a) the head of a central government department is the accounting officer for the department, and

(b) “the chief executive officer of a constitutional institution is the accounting officer for that institution” (RSA 1999: Section 36(2a-b)).

Adverse audit opinion:

“The financial statements contain material misstatements that are not confined to specific amounts, or the misstatements represent a substantial portion of the financial statements” (AGSA 2019:1).

Apply or explain:

“The board could decide to apply the recommendation differently or apply another practice and still achieve the objective of the overarching corporate governance principles of fairness, accountability, responsibility and transparency. Explaining how the principles and recommendations were applied, or if not applied, the reasons results in compliance” (IODSA 2009a:6).

Assurance providers:

These are both internal and external assurance providers. The assurance providers include, but are not limited to, the external auditors, internal auditors and risk management (IODSA 2009b:62-66).

Central government departments:

In this study, this term is used when referring to the national and provincial government departments as a unit.

Corporate governance:

“Mainly involves the establishment of structures and processes, with appropriate checks and balances that enable directors to discharge their legal responsibilities and oversee compliance with legislation. In addition to compliance with legislation, the criteria of good governance, governance codes and guidelines will be relevant to

determine what is regarded as an appropriate standard of conduct for directors" (IODSA 2009a:6-7).

Department:

"Means a national or provincial department or a national or provincial government component" (RSA 1999:6).

Disclaimer of audit opinion:

"The auditee provided insufficient evidence in the form of documentation on which to base an audit opinion. The lack of sufficient evidence is not confined to specific amounts or represents a substantial portion of the information contained in the financial statements" (AGSA 2019:1).

Executive authority:

(a) "In relation to a national department, means the Cabinet member who is accountable to Parliament for that department;
(b) In relation to a provincial department, means the member of the Executive Council of a province who is accountable to the provincial legislature for that department [Definition of 'executive authority' substituted by s. 1 (b) of Act No. 29 of 1999.]" (RSA 1999:6-7).

The executive authority is equivalent to the board of directors in the private sector (PSACF 2014:2). Executive authority is also referred to as a "relevant governing body" (PSACF 2014:2).

Factor variables:

In this study, the term refers to the new independent variables that were formed using the CATPCA statistical technique. This technique reduced the individual variables.

Individual variables:

In this study, the term 'individual variables' refer to the 49 individual audit committee effectiveness variables identified from chapter 3 of King III Code.

Qualified Audit Opinion:

“The financial statements contain material misstatements in specific amounts, or there is insufficient evidence to conclude that specific amounts included in the financial statements are not materially misstated” (AGSA 2019:1)

Relevant treasury:
Means the National Treasury unless delegated in terms of section 10(1) (b) of the Act (RSA 1999).

Stakeholders:
“Any person or group who has an interest in or is affected, even unwittingly, by a particular issue” (RSA 2000:83).

Unqualified opinion with findings:
“The financial statements contain no material misstatements. Unless we express a clean audit outcome, findings have been raised on either reporting on predetermined objectives or non-compliance with legislation, or both these aspects” (AGSA 2019:1).

Unqualified opinion with no findings (clean audit outcome):
“The financial statements are free from material misstatements (in other words, a financially unqualified audit opinion) and there are no material findings on reporting on performance objectives or non-compliance with legislation” (AGSA 2019:1).

1.7 RESEARCH METHODOLOGY

This study employed a quantitative approach to address the primary objective. A content analysis was used as the method for document analysis (Bowen 2009:28). Document analysis is a process of reviewing and evaluating printed and electronic documents (Bowen 2009:27). According to Elo and Kyngäs (2008:107), content analysis is a method that may be used with either qualitative or quantitative data and in an inductive or deductive way. The content analysis method was appropriate as it allowed the researcher to analyse the King III Code and annual reports for the information pertaining to the audit committee effectiveness variables (Hsieh & Shannon 2005:5).

The content of annual reports for the central government departments and chapter 3 of the King III Code were analysed. First, the content of chapter 3 of the King III Code were analysed to identify audit committee effectiveness variables. A Microsoft Excel spreadsheet with 49 audit committee variables was created- this was used when analysing annual reports. Then, the content of the central government departments' annual reports were analysed for disclosure and non-disclosure of those audit committee effectiveness variables in annual reports.

A purposive sampling approach was employed to select 93 South African central government departments for this study. All 38 South African national departments and 55[3] departments from four provinces were selected. The four provinces were selected based on the tendency of the types of audit opinion obtained in the 2014/15 financial year. The Gauteng and Western Cape provincial departments were selected due to having the most unqualified opinions with no findings. The Limpopo and North West provincial departments were selected, as they had the least unqualified opinions with no findings. The sample thus allowed coverage of different audit committees under different circumstances, including different types of audit opinions.

The annual reports were downloaded from the national and provincial departments' websites, and analysed for the disclosure of audit committee effectiveness variables; the analyses were recorded on a Microsoft Excel spreadsheet. The disclosure of each audit committee effectiveness variable was coded as 1, and non-disclosure as -1. The Statistical Package for the Social Sciences (SPSS) was used to conduct the descriptive statistics in the form of frequencies, distinguishing variables with and without variation (Phase 1), reduce variables with variation into factor variables and their related hypotheses using CATPCA (Phase 2), and finally, to perform a multivariate ordinal logistic regression analysis to test the four hypotheses dealing with the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed (Phase 3).

[3] In 2014/15 the North West province had 13 departments. The researcher omitted the department of Economic and Enterprise development from this study by mistake. This department obtained an unqualified audit opinion with findings, as 1 of the 10 other departments. The omission of this department did not materially affect the results of this study.

1.8 ETHICAL CONSIDERATION

Ethical clearance to conduct this research was granted by the University of South Africa (UNISA) for the use of secondary data obtained from the central government departments' websites. Secondary data can be defined as earlier primary data that were created by other users for a different purpose than the research question at hand (Hox & Boeije 2005:596; Cowton 1998:424). Thus, the annual reports compiled by the relevant departments for the purpose of reporting their financial and non-financial affairs to relevant stakeholders are considered as secondary data. The research ethics clearance for this study was obtained from UNISA before the data were collected in June 2016. Specifically, approval was obtained from the Research Ethics Review Committee within the College of Accounting Sciences on the 8th of June 2016 with reference number 2016_CAS_028.

1.9 STRUCTURE OF THE STUDY

This study comprises of five chapters, with content as indicated below:

Chapter 1 introduces and highlights the problem statement. The aim and research objectives of the study are described, and the importance and delimitations of the study are discussed. In addition, the key terms used in this study are listed and defined, and the research methodology and ethical considerations are highlighted.

Chapter 2 contextualises the study in the existing literature, focusing on audit committee characteristics, and oversight of financial reporting and assurance processes as variable commonly used as proxies of audit committee effectiveness.

Chapter 3 describes the research process followed in this study, which includes a discussion on the research philosophy, followed by the research design and the research methods.

Chapter 4 presents the research results.

Chapter 5 outlines the conclusion of the study. This chapter reflects on the significant results that relate to the objectives of the study, as well as the limitations of the study, and subsequently, make recommendations for further research.

1.10 CHAPTER SUMMARY

Chapter 1 introduced the study. A brief general and South African background on audit committees was provided. The literature on the dependent variable used in this study, namely the external audit opinion expressed as a proxy for financial reporting quality, was also considered. Moreover, the challenges faced by the South African public sector audit committees were highlighted. These discussions led to the identification of the research problem, followed by the aim and primary and secondary objectives of this study. The primary objective was to determine the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in the South African central government departments.

The importance of the study, delimitations, definition of key terms, brief research methodology, ethical considerations and the structure of the study were also discussed.

In the next chapter, an overview of the literature on audit committee characteristics and oversight of financial reporting and assurance processes as proxies of audit committee effectiveness are discussed.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

In Chapter 1, the study was introduced, and in Chapter 2, an overview of relevant literature is provided. The agency theory as a theoretical framework, proxies of audit committee effectiveness and audit committee effectiveness disclosure literature are discussed. Audit committee effectiveness characteristics and oversight of financial reporting and assurance processes are presented as sub-sections of the audit committee effectiveness.

2.2 THEORETICAL FRAMEWORK: AGENCY THEORY

This section provides an overview of agency theory as the theoretical framework followed in this study. Due to the separation of power between owners and management, the board of directors assumes a vital role in overseeing the governance of the organisation (L'Huillier 2014:305). Jensen and Meckling (1976:305) argued that the separation of ownership and control creates the agency problem, where management tends to put their interests before that of the shareholders. Since the shareholders are outside the organisation, it creates an agency problem due to information asymmetry (Lin & Hwang 2010:59). As a result, corporate governance mechanisms were introduced to reduce agency problems between managers (agents) and shareholders (principals) (Inaam & Khamoussi 2016:142; Ghafran & O'Sullivan 2013:382; Lin & Hwang 2010:58). The challenge is that there are no generally recognised terminology for shareholders and the board of directors in the public sector (Dawson, Denford, Williams, Preston & Desouza 2016:1186). Therefore, it is essential to first determine who the shareholder and the board of directors are in the public sector. The PSACF (2014:2) suggested that the board of directors are equivalent to the executive authority. Thus, the executive authority – being the president, cabinet members or deputy ministers – can be used as a proxy of the board of directors. Both the board of directors and the executive authority has the role of acting as mediators between the shareholders and the management.

Similarly, the term ‘shareholders’ does not exist in the public sector. According to Dawson et al. (2016:1186), the shareholders are equivalent to the government organisation; for example, the presidency or a ministry as government organisations have legal personality. However, the executive authority and government organisation leaders are the same persons. Thus, for the purpose of this study, the general public will be referred to as the shareholders of central government departments. The management (agents), on the other hand, are still referred to as management in the public sector (Dawson et al. 2016:1184). Furthermore, corporate governance mechanisms are the same in both the public and the private sector. Corporate governance “mainly involves the establishment of structures and processes, with appropriate checks and balances that enable directors to discharge their legal responsibilities and oversee compliance with legislation” (IODSA 2009a:6).

According to Lin and Hwang (2010:56), there is no generally accepted definition of corporate governance, but it might be defined as a “system consisting of people, processes and activities to help ensure stewardship over an entity’s assets”. Other authors indicated that corporate governance entails the relationships between the board of directors, management, shareholders and other stakeholders (Kibiya et al. 2016:126). Thus, corporate governance mechanisms are crucial in ensuring that management in the public sector is held accountable for their decisions (Ghafran & O’Sullivan 2013:382; Lin & Hwang 2010:58). The corporate governance mechanisms can be referred to as the agency cost that is incurred by the general public (through the payment of tax) in monitoring the management activities. The agency costs are defined as the sum of the costs that the principal incurs in monitoring the agent’s bonding expenditure and any remaining residual losses (Hill 1992:132).

A good corporate governance structure in the public sector environment ensures that the management utilises public resources in the best interest of the general public, and fairly reports the financial position and performance of the state institution. Thus, it is crucial that agency mechanisms are introduced to mitigate agency problems, such as manipulation or misstatements of financial information. The executive authority (equivalent to the board of directors in the private sector) therefore delegates some of its responsibilities to sub-committees, such as the audit committee, in order to reduce agency problems. The existence of the audit committee is to protect the interest of the

general public by providing oversight in the areas of financial reporting, internal control and external audit activities (Ika & Mohd Ghazali 2012:408; Beasley, Carcello, Hermanson & Neal 2009:71; Turley & Zaman 2004:133; DeZoort, Hermanson, Archambeault & Reed 2002:40). Similar to audit committees, the internal auditors and external auditors are also referred to as corporate governance mechanisms. Therefore, this study employed the agency theory in explaining the relation between audit committee effectiveness variables and the external audit opinion expressed as a proxy for financial reporting quality. In the next section, variables used as proxies of audit committee effectiveness will be discussed.

2.3 AUDIT COMMITTEE EFFECTIVENESS

According to the Internal Audit Framework of National Treasury, the audit committee should serve as an independent corporate governance mechanism to oversee the financial reporting and assurance processes (RSA 2009:5). An audit committee that adheres to King III Code recommended practices and legislative requirements in relation to independence, financial expertise, number of meetings, size and the chair of the audit committee is expected to function effectively. Research has revealed that the effectiveness of the audit committee depends on these characteristics (Buallay 2018:185; Madi et al. 2015:487; Othman, Ishak, Arif & Aris 2014:331).

Prior literature has refined and motivated variables for audit committee effectiveness. DeZoort et al. (2002:41) defined “An effective audit committee has qualified members with the authority and resources to protect stakeholder interests by ensuring reliable financial reporting, internal controls, and risk management through its diligent oversight efforts”. Cohen, Krishnamoorthy and Wright (2002:56) proposed an effective audit committee is “one that is independent of management’s influence and one that understands the financial reporting process”. For example, audit committee effectiveness enhances the quality of financial reporting (Kibiya et al. 2016:126; Ghafran & O’Sullivan 2013:381). Similarly, the individual audit committee characteristics have the potential of improving the quality of financial reports.

2.3.1 Audit committee characteristics

This section presents an overview of the literature on audit committee characteristics and the impact of these characteristics on financial reporting quality. The characteristics of the audit committee members are widely regarded as variables of the audit committee effectiveness. As mentioned in Chapter 1, this study addresses audit committee effectiveness from the perspective of the King III Code. Firstly, an effective audit committee should only consist of independent non-executive directors (IODSA 2009a: Recommended practices 3.2.1). Secondly, the audit committee members should be suitably skilled and experienced (IODSA 2009a: Principle 3.2). Thirdly, the audit committee should meet as often (at least twice a year) as necessary in order to effectively execute their duties (IODSA 2009a: Recommended practices 3.1.4). Fourthly, the audit committee should consist of at least three members to sufficiently execute their duties (IODSA 2009a: Recommended practices 3.2.2). Lastly, the audit committee should be chaired by an independent non-executive director who is not the chair of the board (IODSA 2009a: Recommended practices 3.2.3).

The establishment of the audit committee as a corporate governance mechanism has been suggested as a driver for financial reporting quality and an unqualified audit opinion (Sun 2019:542; Haji 2015:761). As discussed in Section 1.1, the external audit opinion is used as a proxy for financial reporting quality.

2.3.1.1 Independent audit committee

The independence of audit committee members and the definition of an ‘independent non-executive director as a proxy for audit committee effectiveness’ is discussed in this section. Thereafter, a discussion on the impact of audit committee members who are independent non-executive directors on financial reporting quality follows. An independent audit committee is viewed as an important characteristic of audit committee effectiveness, as it enhances the overall effectiveness of the audit committee (Moses 2019:39; Qasim 2017:105; Madi et al. 2015:490; Othman et al. 2014:331; Sun, Lan & Liu 2014:155; Ghafran & O’Sullivan 2013:381). The King III Code defines independence as “the absence of undue influence and bias which can

be affected by the intensity of the relationship between the director and the company" (IODSA 2009a:52). In addition, King III requires "Independent non-executive directors to be independent in fact and in the perception of a reasonably informed outsider" (IODSA 2009b:38). In the South African public sector, the audit committee members are expected to be independent of the department, and should preferably not be public servants (PSACF 2017:3; RSA 2009: Section 2.5.4). The literature defines 'independence' as the absence of management influence on audit committee roles and responsibilities (Kusnadi, Leong, Suwardy & Wang 2016:197; Klein 2002:375). In order to safeguard the independence of the audit committee, independent directors are assumed to be persons of high calibre with strong incentives to monitor the financial reporting process (Wu, Hsu & Haslam 2016:241).

A non-executive director who is free from any interest position has no material relationship that might influence his/her capacity to be objective and act in the best interest of the stakeholders; such a director is also regarded as independent (IODSA 2016:13; ASX 2014:37; IODSA 2009b: Principle 2.18 No 66). Non-executive directors are referred to as non-executive members in the public sector (PSACF 2017:2). Furthermore, any director who is a material supplier or customer of the organisation in question, including their relatives/families, should not be appointed as an audit committee member (PSACF 2017:2; IIA 2014:12; IODSA 2009b: Principle 2.18 No 67.7; FRC 2014: B.1.1; RSA 2011a: Section 94(4)(c); RSA 2011a: Section 94(4)(b)(iii)). The King III also excludes the professional adviser to the company or the organisation from serving as an audit committee member (IODSA 2009b: Principle 2.18 No 67.6). Previous external audit partners of the appointed audit firm, current partners in the organisation's external audit firm, or senior legal adviser in the preceding three financial years are also excluded (IODSA 2009b: Principle 2.18 No 67.6). In addition, audit committee members should not have had any of their immediate family members in employment in an executive capacity in the organisation during the preceding three years (IODSA 2009b: Principle 2.18 No 67.4). Thus, it is recommended that the audit committee's independence be reviewed annually to ensure their independence (Deloitte 2017:11).

The King III Code recommends that all members of the audit committee should be independent, non-executive directors (IODSA 2009a: Recommended principle 3.2.1).

The National Treasury Regulations require that the audit committee be constituted to ensure their independence (RSA 2005: Section 3.1.5). Despite global efforts to improve audit committee independence, the South African public sector has less strict rules in relation to audit committee independence. For instance, the PFMA and the MFMA have not made reference to audit committee independence, yet it is implied. For instance, the PFMA and the MFMA require that the majority of audit committee members must not be in the employment of the department, public entity or municipality/municipal entity, except with the approval of the National Treasury (PSACF 2017:2; RSA 1999: Section 77(a) (ii); RSA 2003: Section 166(4)). Similarly, the chair of the audit committee should not be in the employment of the department, implying that the chair should be independent (RSA 1999: Section 77(a) (iii)).

The PFMA also requires at least one audit committee member to be employed outside the public service (RSA 1999: Section 77(a) (i)). It is clear that the PFMA does not require all audit committee members to be independent; however, it only implies that the audit committee may have some (*not all*) members not employed by the department. Conversely, the Companies Act requires all members of the audit committee to be non-executive directors. A non-executive member is any person not involved in the day-to-day running of the business or employed by the company (RSA 2011a: Section 94(4)(b) (i)). Despite the public sector's efforts to have independent audit committee members, the South African public sector is still faced with a lack of independent audit committee members (Dintwe 2016:220). However, Moloi (2015:81) found that audit committee members disclosed in the annual reports were considered as independent. It can be expected that the South African public sector audit committees should consist of only independent non-executive members, in line with the King III Code requirements.

The research highlights several benefits arising from the independence of the audit committee. Thus, it can be expected that an audit committee member who is an independent non-executive director is able to attract vital resources and assist management in utilising those resources sufficiently to improve an organisation's sustainability strategy and reporting (Al-Shaer & Zaman 2018:3). An independent non-executive audit committee is also likely to protect financial reporting quality by mitigating management's interests, due to their independence of mind (Moses

2019:38). The studies point out that audit committee independence is reliant on board independence (Klein 2002:398; Menon & Deahl Williams 1994:121). Independent audit committees are also key to upholding the integrity and credibility of published financial statements (Wan Mohammad, Wasiuzzaman, Morsali & Zaini 2018:8). For instance, an independent audit committee is able to provide independent oversight on the financial reporting process (Ghafran & Yasmin 2018:15; Wu et al. 2016:241), thus is likely to reduce misstatements in their financial statements (Soliman & Ragab, 2014:1), financial statement fraud (Wan Mohammad et al. 2018:7), and financial restatement (Shafie & Zainal 2016:196). Hence, an independent audit committee is able to pick up any manipulations in the financial reports increasing the probability of an unqualified opinion with no findings.

Audit committee remuneration

The guidance, regulations and the literature highlight the remuneration factors which have the potential of compromising audit committee independence. For example, the amount, type and duration of the remuneration of audit committee members might influence the committee's effectiveness (Maharaj 2015:3; Bierstaker, Cohen, Todd DeZoort & Hermanson 2012:131). According to Bierstaker et al. (2012:131), audit committee members may be remunerated by "cash, cash and short-term stock options, or cash and long-term stock options". Studies found that audit committee members who are compensated through long-term stock options are more likely to support auditors rather than management when accounting disagreements arise. Conversely, audit committee members who are compensated through cash may enhance the objectivity of audit committee members' oversight of financial reporting (Rickling & Sharma 2017:304).

Since this study was performed in a public sector environment, the audit committee members were mostly remunerated through cash. To ensure the independence of the audit committee as a proxy for audit committee effectiveness, the King III recommends that the audit committee members should be remunerated fairly and their remuneration should be based on work performed (RSA 2011a: Section 94(11); IODSA 2009b:38-39). The remuneration of the audit committee should not depend on the company's performance, but consisting of a base fee, as well as a fee paid for attendance of meetings (RSA 2011a: Section 94(11); IODSA 2009b:38-39). The

National Treasury Regulations requires that audit committee members from outside the public service should be remunerated based on a scale approved by the National Treasury or accounting officer in consultation with the executive authority (RSA 2005: Section 3.1.6 & 20.2.3). Audit committee terms of reference should define the terms (cost and time) and ensure that members are remunerated based on the tariffs as prescribed by members' professional body or South African Institute of Chartered Accountants (RSA 2005: Section 3.1.6 & 20.2.3). The remuneration of all members of the audit committee should be disclosed in the notes of annual reports (RSA 2005: Section 20.2.4).

Audit committee tenure

The audit committee members' tenure was also found to influence their independence. For instance, long-serving audit committee members may have close relations with management, which might result in the committee's objectivity being compromised when reviewing management's activities (Ghafran & Yasmin 2018:15). In addition, the audit fees were found to be higher when the audit committee members remained on the committee longer, as they required additional assurance (Sultana, Singh & Rahman 2019:12). To safeguard audit committee independence in the public sector, the internal audit framework states that an audit committee member's contract should not be for a period exceeding six years, and there should also be a cooling-off period of two years (RSA 2009: Section 2.5.6). The King III, being more lenient, recommends that an audit committee members may not serve for more than nine years (IODSA 2009b:38-39).

Audit committee appointments

The independence of the audit committee is also affected by the appointment process of members. The King III Code recommends that the board should ensure that companies have an effective and independent audit committee (IODSA 2009a: principle 3.1). In the South African private sector, the Companies Act requires the audit committee to be appointed by the incorporators of the company or the board of directors (RSA 2011a: Section 94(3a-b)). In the South African public sector, in the case of a shared audit committee, the audit committee is appointed by the National Treasury in consultation with the relevant executive authority (equivalent to the board of directors) (RSA 2005: Section 3.1.1). The accounting officer (equivalent to the Chief

Executive Officer (CEO)), in consultation with the executive authority in the case of the non-shared audit committee, may appoint the audit committee members (RSA 2005:Section 3.1.2). According to Carcello, Neal, Palmrose and Scholz (2011:398), the CEO's involvement in the selection process reduces the audit committee's effectiveness; CEOs are likely to appoint directors based on their interests and social ties (Carcello et al. 2011:399). This implies that the involvement of the accounting officers in the audit committee selection might reduce the independence of the audit committee. In the public sector, to safeguard the independence of audit committee members, the executive authority acts as a mediator in ensuring that appropriate audit committee members are appointed by the accounting officer (RSA 2005: Section 3.1.2 and 3.1.3).

Independent audit committee measures

In addition, empirical studies that examined the independence of the audit committee have measured the independence of the audit committee as a percentage of audit committee size (Moses 2019:41; Mnif Sellami & Borgi Fendri 2017:612; Madi et al. 2015:489). A high proportion of independent members on the audit committee are expected to enhance the quality of financial reporting (Moses 2019:37; Inaam & Khamoussi 2016:183; Salehi & Shirazi 2016:1646; Klein 2002:375). However, the study conducted by Kusnadi et al. (2016:202) found all the members of the audit committees studied were reported as independent. Similarly, an empirical study that was performed by Moloi (2015:81) in the South African national departments, also found that in most of the analysed annual reports (34 of 38), all audit committee members were independent. Thus, drawing from the above discussion, this study investigates disclosure on central government departments' annual reports to determine whether audit committees consist of only independent non-executive members.

This section provided an overview of the importance of having a fully independent audit committee as a corporate governance mechanism to ensure that the audit committee is effective in discharging their oversight of financial reporting quality and assurance processes. Thus, a fully independent audit committee are likely to obtain an unqualified opinion with no findings as a proxy for higher financial reporting quality.

2.3.1.2 Financial expertise of audit committee members

The literature on audit committee members with financial expertise as a proxy for audit committee effectiveness is provided in this section, followed by a discussion on the impact of the audit committee's financial expertise on financial reporting quality.

The existence of audit committee members with financial expertise was found to enhance the overall audit committee effectiveness (Bilal, Chen & Komal 2018; Kibiya et al. 2016:127; Kusnadi et al. 2016:209; Sultana 2015:90; Shbeilat 2014:543). An individual may acquire financial expertise through formal education or experience, and these individuals are likely to resolve, detect and prevent management from manipulating financial data and applying inappropriate accounting policies (Wang, Lee & Chuang 2016:2419; Kim, Segal, Segal & Zang 2014:2). Having an audit committee with financial expertise was found to reduce the risk of management fraud and improve financial reporting quality (Lee & Park 2019:129; Shafie & Zainal 2016:196). In addition, the audit committee members with financial expertise possess insights needed in considering the effect of complex and risky matters, for example, tax implications, cybersecurity and globalisation, on financial reporting (Bilal et al. 2018:255; Hsu, Moore & Neubaum 2018:1293; KPMG 2017:12).

There has been an ongoing debate in the literature on the definition of what constitutes accounting[4] financial expertise (Bilal et al. 2018:254; Abernathy, Beyer, Masli & Stefaniak 2014:284; Dhaliwal, Naiker & Navissi 2010:789). In the absence of an acceptable definition of 'accounting financial expertise', most scholars have adopted the narrow definition of financial expertise, which is restricted to accounting financial expertise in the Sarbanes-Oxley Act (Badolato, Donelson & Ege 2014:208). More specifically, the studies have recommended that the U.S. Securities and Exchange Commission (SEC) should use the narrow definition of financial expertise, which only includes accounting. The studies that examined both the accounting and non-accounting financial expertise were in favour of accounting financial expertise. For instance, financial experts in the audit committee with accounting expertise enhance the effectiveness of the audit committee (Bilal et al. 2018:253; Abernathy et al.

[4] This study emphasises accounting financial expertise.

2014:283; Hayes 2014:231; Dhaliwal et al. 2010:787). The quality of financial reporting was also found to be higher when there were accounting financial experts on audit committees, as they have the ability to observe that management produces higher quality financial reports (Kibiya et al. 2016:125; Kusnadi et al. 2016:197). Audit committee members with accounting financial expertise have inherent advanced levels of accounting and auditing knowledge (Bilal et al. 2018:262; Sultana, 2015:90; Sultana & Mitchell Van der Zahn 2015:280). Moreover, audit committee members with public accounting experience are positively associated with timelier financial reporting, as experienced individuals can review and analyse financial information more effectively and quicker (Abernathy et al. 2014:283). Accounting financial experts ensure that there is accurate and less dispersed earnings forecasts (Abernathy, Herrmann, Kang & Krishnan 2013:1). Thus, the financial reporting quality is improved when the audit committee has an accounting and finance background, as the level of compliance to the accounting standards is increased (Bepari & Mollik 2015:196).

In addition, the audit committee members with accounting and auditing expertise enhance the implementation of internal audit recommendations and improve internal controls (Lisic, Neal, Zhang, & Zhang 2016:1199; Alzeban 2015:539; Alzeban & Sawan 2015:61). The organisations with accounting financial expertise on their audit committees also benefit from lower audit fees, as accounting financial experts can review financial reports and recommend changes where necessary (Bilal et al. 2018:253; Hayes 2014:233). Conversely, the non-accounting financial experts on the audit committee have insignificant influence on audit committee effectiveness (Bilal et al. 2018:253; Dhaliwal et al. 2010:787). Audit committees that lack accounting financial expertise require extensive external audit work in order to satisfy themselves that the financial reporting is of higher quality, resulting in higher audit fees (Ghafran & O'Sullivan 2013:578). Collectively, these studies were in favour of accounting financial expertise on the audit committee.

A plethora of academic literature on audit committee financial expertise in general exists, without classifying financial expertise into accounting and non-accounting. For example, the financial experts in the audit committee are likely to report more conservatively (Sultana 2015:88), increase earnings quality (Kibiya et al. 2016:125), and improve compliance with International Financial Reporting Standards (IFRS), for

example, related to third party disclosures (Mnif Sellami & Borgi Fendri 2017:603). Furthermore, the financial experts in the audit committee will reduce the occurrence of earnings mismanagement and accounting errors (Zalata, Tauringanaa & Tingbanic 2018:171; Badolato et al. 2014:208; He & Yang 2014:573; Sharma & Kuang 2014:76; Soliman & Ragab 2014:21; Inaam & Khamoussi 2016:179; Velte & Stiglbauer 2011:17). Similarly, the financial experts in the audit committee reduce financial restatements (Wan et al. 2018:17) and mitigate the potential negative effect of non-audit services on auditor reporting quality (Wu et al. 2016:240). However, these benefits of audit committee members with financial expertise indicate an expert review of accounting information, suggesting accounting financial expertise were applied. Thus, it appears these studies imply benefits of audit committee financial expertise are related to members' accounting expertise.

South African norms for audit committee accounting financial expertise

The King III Code recommends that audit committee members should be suitably skilled and experienced (IODSA 2009a: Principle 3.2). In the public sector, the PFMA, the National Treasury Regulations, and the MFMA require that audit committee members should have "appropriate experience" (RSA 2005: Section 3.1.4 and 27.1.4; RSA 2003: Section 166(4) (a); RSA 1999:77(a) (i)). In the private sector, the Companies Act states that the minister may prescribe minimum qualifications for the audit committee (RSA, 2011a: Section 94(5)). However, the literature suggests that the audit committee should consist of members with accounting financial expertise.

The South African legislation and the corporate governance code of best practice do not specifically define audit committee expertise (Mnif Sellami & Borgi Fendri 2017:616). However, organisations are expected to disclose audit committee members' qualifications in their annual reports (RSA 2017:23; IODSA 2009b:42). Companies Act Regulations Part A (RSA 2011b: Section 42) prescribes that "at least one-third of the members of a company's audit committee at any particular time must have academic qualifications, or experience, in economics, law, corporate governance, finance, accounting, commerce, industry, public affairs or human resource management".

To ensure that the audit committee is appropriately constituted with experienced members, the PSACF (2017:5) recommends that public sector audit committees should consist of members who have core skills, knowledge or experience in the overall financial reporting process. The PSACF (2017:6) further suggests that the relevant authority (for instance, the minister for national departments) should perform ongoing assessment and evaluation of the audit committee skills, knowledge and experience needed to improve effectiveness. Deloitte (2017:4) also suggests that the audit committee should perform annual self-reviews to identify areas that need to be improved and determine any skill shortage.

The King codes and reports (King reports) do not emphasise or recommend audit committee members' expertise and experience but refer to "suitably skilled and experienced" (IODSA 2009: Principle 3.2) or at most, "financial literacy" (IODSA 2016: Recommended practice note 55). King I (IODSA 1994) was silent about the audit committee's expertise and experience. King II (IODSA 2002: Section 6.3.1) was the first report that required a majority of the audit committee members to have "relevant experience" and "financial literacy"; however, the report did not define the meaning of "relevant experience" and "financial literacy". King III (IODSA 2009a: Principle 3.2) recommended that "audit committee members should be suitably skilled and experienced independent non-executive directors", but no reference was made to financial expertise. Lastly, the recent King IV recommends that *"*audit committee members should, as a whole, have the necessary financial literacy, skills and experience to execute their duties effectively*"* (IODSA 2016:56) without defining financial literacy, skills and experience.

Clearly, the sentiment conveyed by King III (IODSA 2009b:57-56) aligns to the emphasis by United States of America (2002) on accounting financial expertise in the audit committee. This is evident by the fact that the audit committee is recommended to oversee integrated reporting and internal financial controls, as well as internal and external audit processes, among others, implying the application of accounting expertise and experience by audit committee members.

At a generic level, King III (IODSA 2009b:57) recommends that the collective skills of the audit committee should reflect the size, circumstance and industry of the

organisation, enabling members' probing questions on areas of responsibilities (IODSA 2009b:58). King III (IODSA 2009b:58) also recommends the audit committee should make use of consultants and specialists to assist in executing its duties (IODSA 2009b:58).

International researchers use accounting professional designations in the context of audit committee financial expertise. These authors have used different designations for the accounting financial expert; for instance, in the context of countries such as the United States of America, authors used the country's designations of an accounting financial expert (Hsu et al. 2018:1306; Wilson 2015:305-306). For the purpose of this study, locally recognised accounting designations, namely Associate General Accountant of South Africa, Chartered Accountant South Africa (CA (SA)), Certified Internal Auditor, Chartered Global Management Accountant, Certified Financial Analyst, Professional Accountant South Africa, and Registered Government Auditor will be considered as accounting financial experts.

Reflection on audit committee accounting financial expertise practices in the South African context

Corporate research in South Africa revealed that the private sector employs accounting financial experts as audit committee members. For example, Deloitte (2018:4) analysed audit committee reports publicly available in mid-October 2017 of the top 50 JSE listed companies. Deloitte found that the majority (94%) of analysed companies had at least one audit committee member who was a CA (SA), while 91% of audit committee members held a degree in commerce (Deloitte 2018:04). Evidently, South African privately listed companies have adopted good governance practice, yet academic literature found that there are still some South African companies that do not have audit committee members with financial expertise (Mnif Sellami & Borgi Fendri 2017:616).

Notwithstanding the benefits of having financial experts on audit committees, the South African public sector is generally struggling to recruit audit committee members with appropriate skills and experience (PSACF 2017:3). Providing a possible explanation for the struggle, Dintwe (2016:220) found that experienced and skilled individuals were not willing to serve as audit committee members of public sector

organisations due to prevalent mismanagement. At the root of mismanagement were capacity and skills gaps, weaknesses in the control environment, challenges with implementing accounting standards and constant changes in applicable standards, and difficulty in complying with an increasing number of legislative requirements (Dintwe 2016:220). In order to address the identified skill shortage, the PSACF implemented registration platforms for individuals interested in becoming audit committee members, as well as an advertisement platform for audit committee vacant posts (PSACF 2017:3). This initiative should assist the public sector in recruiting willing, skilled and knowledgeable individuals who have shown interest in becoming audit committee members.

Number of accounting financial experts in an audit committee

Studies that examined audit committees' accounting financial expertise, suggested that each audit committee should make efforts to ensure that each audit committee has at least one financial expert (Bilal et al. 2018:253; Kusnadi et al. 2016:212; Cohen, Hoitash, Krishnamoorthy & Wright 2014:243; Ghafran & O'Sullivan 2013:406). Other countries require audit committees to have at least two audit committee members with financial expertise (Kusnadi et al. 2016:200; Ghafran & O'Sullivan 2013:406). Interestingly, Krishnamoorthy Wright and Cohen (2002:243) found that audit committees with accounting financial experts with industry expertise perform better than audit committees with only accounting financial expertise. Subsequent to the Enron debacle, researchers have questioned whether financial expertise makes any difference to audit committee effectiveness, as the majority of the Enron audit committee members were financial experts (Zalata et al. 2018:170; Shbeilat 2014:543). However, most of the studies that have investigated audit committee financial expertise, measured financial expertise as a percentage of audit committee size (Abad & Bravo 2018:173; Hsu et al. 2018:1313; Tanyi & Smith 2015:66; Madi et al. 2015:489). This study employed the King III Code recommended practices in assessing disclosed audit committee effectiveness. Thus, the disclosure of at least one audit committee member with accounting financial expertise is taken to satisfy the King III Code recommendation that "the committee collectively should have sufficient qualifications and experience to fulfil its duties" (IODSA 2009a: Recommended practice 3.2.4).

This section provided an overview of the literature on the value of having audit committee members with accounting financial expertise as an important characteristic for audit committee effectiveness in enhancing financial reporting quality. Thus, organisations with an audit committee with at least one member with accounting financial expertise are likely to obtain an unqualified opinion with no findings as a proxy for higher financial reporting quality.

2.3.1.3 Number of audit committee meetings

The literature on the number of audit committee meetings as a proxy for audit committee effectiveness is discussed in this section. The PFMA requires, and the King III Code recommends, that the audit committee should meet at least twice a year (IODSA 2009a: Recommended practice 3.1.4; RSA 1999: Section 77(b)), while the MFMA requires that the audit committees should meet at least four times a year (RSA 2003: Section166 (4) (b)). Nkonki (2015:14) proposed that the audit committee should meet at least three times per year. Frequent audit committee meetings with management, external auditors and internal auditors are likely to enhance the audit committee's effectiveness of oversight of financial reporting quality. For instance, audit committees that meet often are likely to keep abreast with the affairs of the organisation and are able to identify issues and resolve them promptly (Gebrayel, Jarrar, Salloum & Lefebvre 2018:198; Salehi & Shirazi 2016:1648; Alzharani & Aljaaidi 2015:42; Tao & Hutchinson 2013:86). Thus, audit committee meetings are an essential part of the oversight that reduce agency problems (Mustafa, Che-Ahmad & Chandren 2018:595; Wan Mohammad et al. 2018:8; Haji & Anifowose 2016:940; Sultana 2015:88).

An audit committee that meets with other corporate governance mechanisms is likely to provide more effective oversight of the organisation (Zábojníková 2016). Audit committees are also required to meet with external auditors alone at least once a year to ensure that there are no unresolved issues (RSA 2005: Section 27.1.13 & 3.1.16). The legislation further requires the internal audit function to report to all audit committee meetings (RSA 2005: Section 27.2.8). Similarly, the prior literature found that a greater number of audit committee meetings are likely to enhance financial reporting quality and external audit quality, as the audit committee is likely to hire high-

quality external auditors (DeZoort et al. 2002:65). The audit committee is expected to report to the board in case of the private sector companies, and the executive authority in the case of a central government departments on how they have discharged their duties (IODSA 2009a: Principle 3.10).

In addition, the chairman of the audit committee should be involved in setting and agreeing on an audit committee meeting agenda (IODSA 2009a: Recommended practice 3.3.2). The agenda should be provided to members in advance, together with the notice of the meeting. To ensure that the meetings are productive, the agenda should include a summary of each line item to be discussed and address the key points (Deloitte 2017:69). Thus, a well-constituted or planned audit committee meeting will be more effective than a committee meeting with no goals.

The literature has used the number of audit committee meetings as a proxy for audit committee effectiveness (Wan Mohammad et al. 2018:8; Motubatse & Mashele 2018:593; Haji & Anifowose 2016:940; Sultana 2015:88). The findings suggest that an audit committee that meets frequently enhances audit committee effectiveness in monitoring financial reporting quality. For instance, audit committees that meet frequently are likely to perform their duties effectively by providing monitoring oversight on management decisions relating to the selection of appropriate policies and accounting standards (Alzharani & Aljaaidi 2015:42; Sultana 2015:91). Similarly, an audit committee that meets more often is able to ensure that the financial reporting process is functioning properly, leading to increased financial reporting quality (Moses 2019:40) and internal control quality (Ghafran & O'Sullivan 2013:397).

However, other authors debated different interpretations of these findings. For instance, some argued that a high frequency of audit committee meetings might also suggest the presence of problems (Wan Mohammad et al. 2018:8). Conversely, audit committees that meet occasionally might be a sign that the audit committee only "rubber-stamps" management's plans (Lisic et al. 2016:1209). When the minimum number of audit committee meetings is not prescribed, the audit committee should meet as often as necessary, taking into account the needs of the organisation.

Prior literature has suggested that the audit committee should consider adhering to the legislative requirement to avoid any non-compliance with laws and regulations. In addition, Nkonki (2015:14) suggested that the audit committee meetings should take place “prior to the commencement of the interim audit; after the interim audit and prior to the commencement of the year-end audit; and after completion of the year-end audit and prior to reporting”. Deloitte (2017:68) suggested that the audit committee should meet at least four times a year at appropriate times in the reporting and audit cycle. Similarly, an empirical study performed by Haji and Anifowose (2016:933) in South Africa, found that audit committee meetings range from two to 12 meetings per year, with an average of four meetings per year. Gebrayel et al. (2018:207) also found that most audit committees from Omani listed firms met at least 4.78 times a year. It can be concluded that given the public sector environment and its operational complexity and size, the audit committee should meet as often as it deems necessary, depending on the issues they are faced with. It is expected that audit committees that meet more frequently than the legislative requirement (twice a year) are likely to be more effective than audit committees that meet two or fewer times a year. In the absence of a recommended maximum number of audit committee meetings, audit committees that disclosed they met at least twice a year were considered by this study to have adhered to the recommendations of the King III Code (IODSA 2009a: Recommended practice 3.1.4).

This section provided an overview of the literature on the number of audit committee meetings, as a proxy for audit committee effectiveness in enhancing financial reporting quality. Thus, organisations with audit committee members that meet at least twice a year are more likely to obtain an unqualified opinion with no findings, as a proxy for higher financial reporting quality.

2.3.1.4 Size of the audit committee

The size of the audit committee is defined as the number of members in the audit committee. The audit committee should consist of a sufficient number of audit committee members to enable them to execute their duties as an agency mechanism. In South Africa, the Companies Act, the PFMA and the MFMA require, and the King III Code recommends, that the audit committee should consist of at least three

members (RSA 2011a: Section 94(2); IODSA 2009a: Recommended practice 3.2.2; RSA 2005: Section 166(4) (a); RSA 1999: Section 77 (a)). The King III recommends that the audit committee should have a sufficient number of members to be able to fulfil its responsibilities effectively (IODSA 2009b: Principle 3.1(5)). Similarly, the United Kingdom corporate governance code suggests that the audit committee should have a minimum of three independent non-executive directors or two in case of small companies (FRC 2018:10; FRC 2014:C.3.1).

Prior literature has examined the importance of the size of the audit committee as a proxy of audit committee effectiveness. The findings suggested that the audit committee size enhances the effectiveness of the committee and improves an organisation's performance (Alzharani & Aljaaidi 2015:39). A larger audit committee was also found to increase stakeholder's confidence in financial reporting quality and has the potential to increase audit committee members' accountability (Wan Mohammad et al. 2018:9; Madi et al. 2015:488). Similarly, a larger audit committee is likely to discover issues quicker as each member might be responsible for a small section, allowing enough time to oversee management processes (Bédard & Gendron 2010:194). In addition, a larger number of audit committee members might bring along diverse experience and expertise (Moses 2019:37; Lin & Hwang 2010:67), which is likely to improve its effectiveness. However, a smaller audit committee was found to work more efficiently than a larger audit committee; it is easier to manage a smaller group than a large group of people (Nkonki 2015:13).

Given the size and complexity of the public sector, on average, the size of audit committees was found to be larger than the private sector audit committees (Rainsbury, Malthus & Capper 2012:103). In their analysis, Deloitte (2018:3) found that the audit committee in the private sector consists of four members on average. Deloitte (2017:4) also suggested that the audit committee size should be limited to four or five members. In the public sector, audit committees consisted of an average of six members, while the average for the local government was seven members (Rainsbury et al. 2012:109). Legislation and the King reports do not limit the number of audit committee members. In the absence of a recommended maximum number of audit committee members, audit committees that consisted of at least three members

were deemed as appropriately constituted and as having met the King III Code recommended practices for the purposes of this study.

This section provided an overview of the literature on audit committee size as a proxy for audit committee effectiveness in enhancing financial reporting quality. Thus, organisations with at least three audit committee members are likely to obtain an unqualified opinion with no findings as a proxy for higher financial reporting quality.

2.3.1.5 Audit committee chair

The South African public sector legislation requires that the audit committee chair should be independent, thus not employed by the department (RSA 2005: Section 27.1.3 & 3.1.4; RSA 1999: Section 77(a) (iii)). Similarly, the King III Code recommends that the audit committee should be chaired by an independent non-executive director (IODS 2009a: Principle 3.3). As discussed in Section 2.3.1.1, using an agency perspective, the audit committee independence from management is essential for enhancing the interest and confidence of the stakeholders in the role played by the audit committee. The appointment of the chair of the audit committee is assigned to the board of directors (IODSA 2009a: Recommended practice 3.3.1). The King III Code also recommends that “the chairman of the board should not be the chair or member of the audit committee” (IODSA 2009a: Recommended practice 3.2.3 & 3.3.1). Deloitte (2018:5) found that the majority of companies adhere to the recommendations of the King III Code. An independent audit committee chair reduces dilution of the independence and effectiveness of the audit committee (Li, Mangena & Pike 2012:108). Thus, an independent non-executive member should chair the audit committee.

Researchers acknowledge that an independent audit committee chair is important for the effective functioning of the audit committee (Li, Mangena & Pike 2012:108). As a result, the effectiveness of the audit committee relies heavily on the leadership of the audit committee chair. According to Zaman and Sarens (2013:495), the knowledge and experience of the audit committee chair are associated with the effectiveness of the internal audit quality. Highlighting the important role of the audit committee chair, Ghafran and Yasmin (2018:13) referred to the audit committee chair as the “CEO” of

the audit committee and the “focal point for the committee’s relations with the board, Chief Financial Officer (CFO), internal and external auditors”. Legislation requires the audit committee chair to be knowledgeable, having the requisite business, financial and leadership skills (RSA 2005: Section 3.1.4). An audit committee chair with knowledge about and experience with the organisation is able to encourage informal interactions between the audit committee and the internal audit function (Zaman & Sarens 2013:500). An audit committee chair should be able to facilitate a flow of information between the audit committee and management, as well as the internal and external auditors (Tanyi & Smith 2015:60). Thus, an audit committee chair with sufficient background in auditing and accounting is likely to be able to effectively interact with management, internal and external auditors.

In addition, an audit committee chair with auditing and accounting background was considered by researchers to enhance financial reporting quality. The detailed literature on the impact of audit committee auditing and accounting background was provided in Section 2.4.2.2 of the study. Prior literature found that monitoring and experiential expertise of the audit committee chair ensure that organisations meet financial reporting timelines, resulting in more effective audit committees (Ghafran & Yasmin 2018:13). However, Tanyi and Smith (2015:61) found that when the chair of the audit committee has multiple directorships, their monitoring and oversight role on financial reporting weakens.

The audit committee chair, being the driver of the audit committee, is expected to participate in setting and agreeing on the agenda of audit committee meetings (IODSA 2009a: Recommended Practice 3.3.2). An audit committee chair with leadership skills is able to manage the meetings effectively and resolve disputes quickly (DeZoort et al. 2002:43). Thus, an audit committee chair with effective leadership skills will be able to prevent reliance on one member who has financial expertise (La Grange 2015:53). In addition, Shafie and Zainal (2016:195) found that an audit committee chair with accounting expertise or relevant work experience is likely to lead discussions and deliberate the results to reflect the understanding of the committee.

The chair of the audit committee is recommended to attend annual general meetings of the organisation (IODSA 2009a: Recommended Practice 3.3.3). Thus, an

experienced audit committee chair is likely to be able to respond to all shareholders' questions in relation to any audit committee roles and responsibilities.

This section provided an overview of the literature on appointing an audit committee chair who is not the chair of the board, who is also an independent non-executive member with accounting financial expertise as a proxy for audit committee effectiveness in enhancing financial reporting quality. Thus, private and public sector organisations with an audit committee chair who is not the chair of the board of a company or the executive authority of a public sector organisation and has accounting financial expertise are likely to obtain an unqualified opinion with no findings as a proxy for maintaining higher financial reporting quality.

2.3.2 Audit committee oversight of financial reporting and assurance processes

This section provides a brief overview of the audit committee's oversight responsibilities of the financial reporting and assurance processes. King III refers to the finance function, internal auditors, external auditors and risk management as assurance providers (IODSA 2009b:62-66), requiring audit committee oversight thereof. For the audit committee to be effective, it should have an understanding of its roles and responsibilities and the knowledge and experience to meet its responsibilities (Qasim 2017:86). The audit committee should disclose in the annual report that it has an approved term of reference and that it has satisfied its responsibilities (IODSA 2009a: Principle 3.10; RSA 2005: Section 27.1.7). To ensure the effectiveness of the audit committee's oversight of assurance providers, it is crucial for the audit committee to monitor the organisation's relationship with its assurance providers (IODSA 2009a: Recommended practice 3.5.2).

2.3.2.1 Financial reporting

The audit committee's oversight focuses on the effectiveness of the finance function and the financial reporting processes, considering the resources, expertise and experience needed (IODSA 2009a: Principle 3.6). The audit committee should review the finance function annually (IODSA 2009a: Recommended practice 3.6.1) and

disclose the results of the review in the integrated report (IODSA 2009a: Recommended practice 3.6.2). The management is primarily responsible for preparing the financial statements and ensuring compliance with reporting standards. The accounting officer in a central government department is the manager responsible for the preparation of the financial statements and annual report (RSA 1999: Section 40(b)).

The financial statements are also referred to as financial reports; these are a medium of communicating the financial affairs of the organisation to the stakeholders (Moses 2019:39). The information published in the financial statements should be in accordance with applicable generally recognised accounting practice (RSA 1999: Section 40(1)(b)). Any content in the financial report that is not accurate might mislead the stakeholders; since the stakeholders are not involved in the day-to-day management of the organisations, they use information in financial reports for decision-making. Drawing from the discussion, when management neglects their reporting responsibilities, this creates agency problems.

To ensure that the financial reports are fair and accurate, the audit committee, as a sub-board committee, is tasked with monitoring the adequacy, reliability and accuracy of financial statements prepared by management (RSA 2005: Section 27.1.8(d)). The King III Code recommends the audit committee should oversee the integrated reporting (IODSA 2009a: Principle 3.4). The financial statements alone have limited information, hence integrated reporting was introduced to report both financial and non-financial information (Haji 2015:757). However, the PFMA in South Africa does not require government departments to prepare integrated reports; instead, the government departments prepare financial statements with non-financial information in the annual report focussing on service delivery performance (RSA 1999: Section 40(1)(a-b)).

The audit committee should provide guidance to management when preparing financial reports in order to ensure that the reports are in compliance with relevant accounting standards (Lin & Hwang 2010:59). In South Africa, the PFMA requires the accounting officer to “prepare financial statements for each financial year in accordance with generally recognised accounting practice;" (RSA 1999: Section

40(1)(b)). Any non-compliance to the applicable standards reduces the quality of financial statements. The audit committee should also comment on its evaluation of the financial statements in the annual report (RSA 2005: Section 27.1.10 (c)), and ensure that the combined assurance model is applied (IODSA 2009a: Principle 3.5). Drawing from the discussion, an effective internal governance structure provides effective monitoring of financial processes, thus reducing the risk of misstated financial statements. It is therefore, important that all assurance providers are effective in reducing agency costs and enhancing stakeholders' confidence in published financial statements.

The corporate governance mechanisms are used to ensure that financial reports comply with relevant accounting standards, including the reliability and credibility of financial statements (Inaam & Khamoussi 2016:180). According to Jonas and Blanchet (2000:354), financial reporting quality is not just the end product, but it includes the processes linked to the organisation's transactions and events; selection of accounting policies; application of accounting policies; estimates and judgements involved; and disclosures of transactions, events, policies, estimates, and judgements. Thus, the quality of financial reporting relies on the financial reporting processes followed from the beginning to the end.

The perceived quality of financial reporting also depends on the users' needs. For instance, management and creditors tend to focus on valuation-related matters (Jonas & Blanchet 2000:354), while the general public tends to focus more on corporate governance disclosures as indicators of financial reporting quality and stewardship-related issues (Jonas & Blanchet 2000:354). Another study defined financial reporting quality as financial reports that are complete, neutral and free from error, and provide a fair representation of the affairs of the organisation (Gaynor, Kelton, Mercer & Yohn 2016:14). In addition, financial reports that obtained an unqualified opinion with no findings are also considered as having a higher financial reporting quality (Gaynor et al. 2016:14). Thus, government departments that obtain unqualified opinions without findings on their financial reports provide the general public with confidence that financial reporting standards were met and about the use of public funds in accordance with legislation, such as the PFMA.

This section provided brief literature on audit committees' effective oversight of financial reporting as a proxy for audit committee effectiveness in enhancing the quality of financial reporting. Thus, organisations with audit committees that are effective in providing oversight of financial reporting are likely to obtain an unqualified opinion with no findings as a proxy for higher financial reporting quality.

2.3.2.2 Internal audit function

Audit committee's oversight role of the internal audit function as an assurance process is discussed in this section. The internal audit function is referred to by many scholars as one of the corporate governance mechanisms in reducing the agency problem (Gebrayel et al. 2018:199). For instance, an effective internal audit function is essential for assessing the performance of the public sector and keeping management accountable (Coetzee & Erasmus 2017:236; Hendriks 2017:321). Hence, the internal audit function is considered a major source of information about the performance of management and the integrity of financial reporting processes used by audit committees (Gebrayel et al. 2018:18; Ege 2015:499).

In the South African central government departments, the internal audit function should evaluate the information systems environment, reliability and integrity of financial information, safeguarding of assets, the effectiveness of operations, and compliance with laws, regulations and controls (RSA 2005: Section 3.2.11 (a-e)). The public sector's internal auditors are also expected to assist the accounting officer to establish, communicate, monitor and achieve the objectives of state organisations (RSA 2005: Section 3.2.12).

According to Ege (2015:499), the internal auditors are the "eyes and ears of the audit committee" in reducing management misconduct. Hence, internal auditors ensure accountability by providing assurance on the corporate values adhered to by management (RSA 2005: Section 3.2.12). A strong internal control system and effective internal audit were also found to have a positive effect on financial reporting quality (Kewo & Afiah 2017:568).

In the South African public sector, the legislation and regulations mandate all public entities to establish an internal audit function (RSA 2005: Section 27.2.2). Prior literature suggests that the standards of the Institute of Internal Auditors are influential outside the United States in providing guidance to internal auditors (Coetzee & Erasmus 2017:246). Moreover, public sector internal auditors are required to comply with the standards of the Institute of Internal Auditors (RSA 2005: Section 27.2.6). Previous studies did not find any significant difference between public and private sector internal audit effectiveness (Coetzee & Erasmus 2017:246; Erasmus & Coetzee 2017:85).

The internal audit function is expected to be independent of management, hence the regulations and the literature suggest that the internal audit function should report directly to the audit committee (Hoseini & Karimi-Pouya 2018:62; García, Barbadillo & Pérez 2012:310; RSA 2005: Section 27.2.8). The audit committee benefits more from interacting with the internal audit function in the absence of management, as the internal auditors are more open to discussing issues freely (Abdullah, Ismail & Smith 2018:11; Zaman & Sarens 2013:512). Abbott, Parker and Peters (2010:13) found that internal auditors were reporting to the CFO or CEO instead of the audit committee. The King III Code recommends that the audit committee should be responsible for the appointment, dismissal and performance of the chief audit executive (IODSA 2009a: Recommended practice 3.7.1). Providing the audit committee with such responsibilities ensures the effectiveness of the internal audit function (Van der Nest, Thornhill & De Jager 2008:551).

The audit committee should provide oversight of the internal audit function's work to enhance the effectiveness of the internal audit function; for instance, the audit committee should approve the internal audit plan (IODSA 2009a: Recommended practice 3.7.2; RSA 2005: Section 3.2.7). The literature found that the audit committee's review of the internal audit activities in various stages, particularly at the planning stage, enhances the effectiveness of the internal audit function (Abdullah et al. 2018:1). Moreover, the audit committee should ensure that the internal audit function is subject to an independent quality review when deemed necessary (IODSA 2009a: Recommended practice 3.7.3).

A good working relationship between the audit committee and internal audit enhances internal control quality and therefore improves financial reporting quality (Khlif & Samaha 2016:269; García et al. 2012:310; Van der Nest et al. 2008:555). Active support from the audit committee to the internal audit function contributes to financial reporting quality as fraud and the likelihood of corporate failure is reduced (Abdullah et al. 2018:11) as a consequence of improved corporate governance (Chang, Chen, Cheng & Chi 2019:17; Ege 2015:497; García et al. 2012:327). For quality financial reporting, regulations require the public sector audit committee to ensure that any identified accounting and auditing concerns (RSA 2005: Section 3.10.1(e)) and risk areas are covered during the internal audit process (RSA 2005: Section 3.10.1 (c)).

Material weaknesses in internal controls reduce the quality of financial reporting (Myllymäki 2014:93). To safeguard the internal controls, the regulation requires, and the King III Code recommends, the audit committee to review the effectiveness (RSA 2005:3.1.10(a)) and activities of the internal audit function (IODSA 2009a: Principle 3.7; RSA 2005: Section 3.1.10 (e & g)). For instance, an effective internal audit function is able to detect transaction manipulation in an institution (García et al. 2012:328). An audit committee with greater oversight of the internal audit function thus increases the focus of the internal audit function on internal controls (Abbott et al. 2010:22). The higher the quality of the internal audit function's work, the more the external auditors can place reliance on internal controls (Mat Zain, Zaman & Mohamed 2015:134). Organisations that want to reduce audit fees are thus likely to improve their financial reporting quality (Mat Zain et al. 2015:134).

This section provided brief literature on audit committees' effective oversight of the internal audit function as a proxy for audit committee effectiveness in enhancing the quality of financial reporting. Thus, organisations with audit committees that are effective in providing oversight of the internal audit function are likely to obtain an unqualified opinion with no findings as a proxy for higher financial reporting quality.

2.3.2.3 External audit function

Agency theory suggests that external auditors play an important role in mitigating information asymmetry and agency problems between management and the

stakeholders, through expressing an opinion on the financial statements (Moalla & Baili 2019:106; Khlif & Samaha 2016:273). However, the roles of the audit committee and external auditors, in terms of financial reporting, are different. For instance, the primary objectives of the external auditors are to express an opinion on the fair presentation of the financial affairs in compliance with the applicable accounting standards and on the quality of the internal controls over financial reporting (Moalla & Baili 2019:104). In the South African public sector, the AGSA is mandated to audit the financial statements of the central government departments (RSA 2018: Section 4(b)). The opinion expressed by the external auditors provides the stakeholders with confidence in the credibility and integrity of the financial statements, but not absolute assurance. The different types of audit opinions that can be issued by the external auditors are discussed in Section 1.1 of this study.

The independence of the external auditors depends on the body which is responsible for nominating, dismissing and deciding on their remuneration (Shbeilat 2014:543). To safeguard the independence of external auditors from management, audit committees are expected to assist the board in nominating external auditors for appointments (IODSA 2009a: Principle 3.9). However, in the South African public sector, the AGSA is the only external auditors appointed by parliament to audit the central government departments (RSA 1999: Section 8(2)).

The South African legislation requires, and the corporate governance code recommends, audit committees should monitor and report on the independence of the external auditors (IODSA 2009a: Recommended practice 3.9.3; RSA 2005: Section 27.1.8). The audit committee is also responsible for approving the terms of engagement and remuneration of the external auditors (IODSA 2009a: Recommended practice 3.9.2). The King III Code further recommends the audit committee to approve non-audit services provided by the external auditors (IODSA 2009a: Recommended practice 3.9.4), however, the AGSA does not provide any services to the public sector other than an external audit.

To promote the South African public sector audit committee’s oversight of the external auditors, the audit committee is required to meet with the external auditors at least annually (RSA 2005: Section 3.1.16). The meetings should include discussions on the

external audit process as recommended by King III Code, for the audit committee to review the quality and effectiveness of the audit process (IODSA 2009a: Recommended practice 3.9.6). Furthermore, the audit committee is expected to review risk areas to be covered during the external audit (RSA 2005: Section 3.1.10(c)), and the external auditors should inform the audit committee of any identified reportable irregularities (IODSA 2009a: Recommended practice 3.9.5). In the South African public sector, the external auditors should also report any accounting and auditing concerns identified during the audit to the audit committee (RSA 2005: Section 3.1.10(e)).

Audit committee interactions with external auditors were found to enhance the audit quality as a proxy for an audit opinion (Beattie, Fearnley & Hines 2013:56). Some of the characteristics of an effective audit committee were also found to enhance the audit committee's relationship with external auditors. The audit committee's independent non-executive directors with financial expertise are able to act as mediators in resolving accounting issues between management and external auditors (Appiah & Amon 2017:300; Wu et al. 2016:241). Furthermore, the audit committee's experience enhances the quality of corporate governance which might lead to higher audit quality and reduced audit fees (Sultana et al. 2019:3). The quality of corporate governance was found to be a good predictor of the type of audit opinion an organisation can obtain (Sun 2019:546).

This section provided brief literature on audit committees' effective oversight over the external audit function as a proxy for audit committee effectiveness in enhancing the quality of financial reporting. Thus, organisations with audit committees that are effective in providing oversight of external audit functions are likely to obtain an unqualified opinion with no findings as a proxy for higher financial reporting quality.

2.3.2.4 Risk management

Risk management is essential for the organisation's good governance and needs to be effective to ensure the sustainability of the organisation (Abdullah, Shukor & Rahmat 2017:83). Stakeholders are increasingly concerned about the status of organisations' practices in relation to risk management (Abdullah et al. 2017:83). It is

also important that risk management information is disclosed to reduce information asymmetry between management and stakeholders (Tao & Hutchinson 2013:86). Thus, risk management is regarded as a corporate governance mechanism in ensuring sustainable stakeholders' value (Van Vuuren 2016:165).

The importance of risk management and the expected disclosure is evident in the recommendations provided in King III and the King III Code (IODSA 2009) and by the regulatory authorities. The audit committee is expected to disclose in the annual report that they have carried out their responsibilities in relation to the risk management set out in their charter (IODSA 2009a: Recommended practice 3.8.1). To ensure effective monitoring of the risk management process, the audit committee should be involved in the organisation's risk assessment (IODSA 2009a: Principle 3.8). Prior studies suggested that audit committee effectiveness enhances the quality of internal control and increases risk management effectiveness (Ghafran & Yasmin 2018:15; Alzharani & Aljaaidi 2015:39). Similarly, the number of audit committee meetings and members (Musallam 2018:4125), as well as members' expertise (Maharaj 2015:16), are also significantly associated with effective oversight of risk management. Thus, audit committee effectiveness plays an important role in ensuring that management, as well as the internal and external auditors are effective in their roles related to risk management. For instance, the internal auditors play an important role in assisting the audit committee with examining, evaluating and reporting on the overall risk management process (Hameed, Hashmi, Ali & Arif 2017:36). Similarly, the external auditors, as part of their audit process, assess the organisation's risk management processes and implementations (Hameed et al. 2017:36). From this discussion, it can be expected that the audit committee's effective monitoring of both the internal and external audit processes contributes to overall risk management.

A prior study confirmed a link between risk management and financial reporting quality (Cohen et al. 2017:1204). This link purports that the higher the quality of the risk management process, the higher the quality of financial reporting (Cohen et al. 2017:1204). In order for the audit committee to improve the quality of financial reporting, the audit committee is recommended to oversee the financial reporting, internal financial controls, fraud risks and information technology risks in relation to financial reporting (IODSA 2009a: Recommended practice 3.8.2.1 - 3.8.2.4).

This section provided brief literature on the value of audit committee effectiveness oversight of risk management as a proxy for audit committee effectiveness in enhancing the quality of financial reporting. Thus, organisations with audit committees that are effective in providing oversight of risk management are likely to obtain an unqualified opinion with no findings as a proxy for higher financial reporting quality.

2.4 AUDIT COMMITTEE EFFECTIVENESS DISCLOSURE

This study employed the agency theory as the theoretical framework in addressing the objectives of this study. As discussed in Section 2.2, information asymmetry arises from the separation of power between stakeholders and management (Haldar & Raithatha 2017:252; Samaha, Dahawy, Hussainey & Stapleton 2012:176). Thus, it is essential that the audit committee, as agency mechanism, reduces information asymmetry (Akhtaruddin 2010:70). The audit committee is entrusted with ensuring that the stakeholders have access to the information that relates to the affairs of the organisation, which, among others, include audit committee roles and responsibilities, thus reducing the information asymmetry (Akhtaruddin 2010:72). From the discussion, it can be concluded that information disclosure is essential as stakeholders assess the performance and effectiveness of board committees based on what is disclosed in the annual reports. Sufficient disclosure about the audit committee in the annual reports will thus enable the stakeholders to evaluate the degree of impact the audit committee has on the organisation's financial reporting and assurance processes, including the audit opinion. The disclosed audit committee oversight of financial reporting and assurance processes provide confidence to the stakeholders that the committee is doing what it is expected to do.

Management may elect to disclose their compliance to the King reports in the integrated report, sustainability report, social and ethics committee report with other online or printed information or reports as long as they are publicly available (IODSA 2016:38). However, for the South African central government departments, the annual reports are used to report both financial and non-financial information. This disclosure of compliance is essential as it provides the stakeholders information about with the

status of corporate governance of an organisation. In the public sector, the National Treasury Regulations require that central government departments disclose information regarding the audit committee's oversight of financial reporting and assurance processes in their annual reports (RSA 2005: Section 3.1.9). The National Treasury Regulations also stipulate the type of information to be disclosed in the annual reports in relation to audit committees; non-disclosure of such information will thus constitute non-compliance to laws and regulations. Non-disclosure of recommended principles and practices in the King III Code would imply that the recommended principles and practices were not applied. However, voluntary disclosure by the central government departments of the King III Code recommendations might reduce information asymmetry and enhance the stakeholders' confidence in audit committee oversight of financial reporting and assurance processes. Audit committee characteristics, such as independence and size, were found to enhance corporate voluntary disclosure (Madi et al. 2015:486).

Earlier studies in South Africa, investigated the effectiveness of audit committees' disclosure to stakeholders. For example, Moloi (2015:67), Marx and Voogt (2010:17) and Marx (2009:31) found that there is insufficient disclosure, as audit committees' oversight of financial reporting and assurance processes exceeded what was being disclosed. In a more recent study, Coetzee and Erasmus (2019:1) found that the public sector organisations have improved their voluntary disclosure of audit committee oversight of financial reporting and assurance processes in relation to King III Code recommended principles and practices.

2.5 CHAPTER SUMMARY

Chapter 2 provided literature on the agency theory as a theoretical framework employed in this study, as an audit committee is considered an agency control mechanism to reduce agency problems. Through a review of the legislation, the King reports and codes, and the literature, the audit committee effectiveness variables in relation to financial reporting quality and the resultant external audit opinion were explored.

Audit committee independence, accounting financial expertise, number of meetings, size and the chair of the audit committee, as audit committee effectiveness variables, were discussed. Then, audit committee oversight of financial reporting, the internal audit function, the external audit function and risk management, were presented as audit committee effectiveness variables.

In the next chapter, the research process followed in this study is provided.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 2 contextualised audit committee effectiveness variables and the influence thereof on financial reporting and assurance processes, using agency theory as a frame. Audit committee characteristics and oversight of financial reporting and assurance processes were discussed as proxies of audit committee effectiveness.

The purpose of this chapter is to discuss the literature and discuss the research process followed in this study, as outlined by various authors (Creswell & Creswell 2018:70; Saunders, Lewis & Thornhill 2009:xix; Kothari 2004:11). Figure 3.1 depicts the steps of the research process that were applied in this study. The discussion on ethical considerations is also included in the chapter.

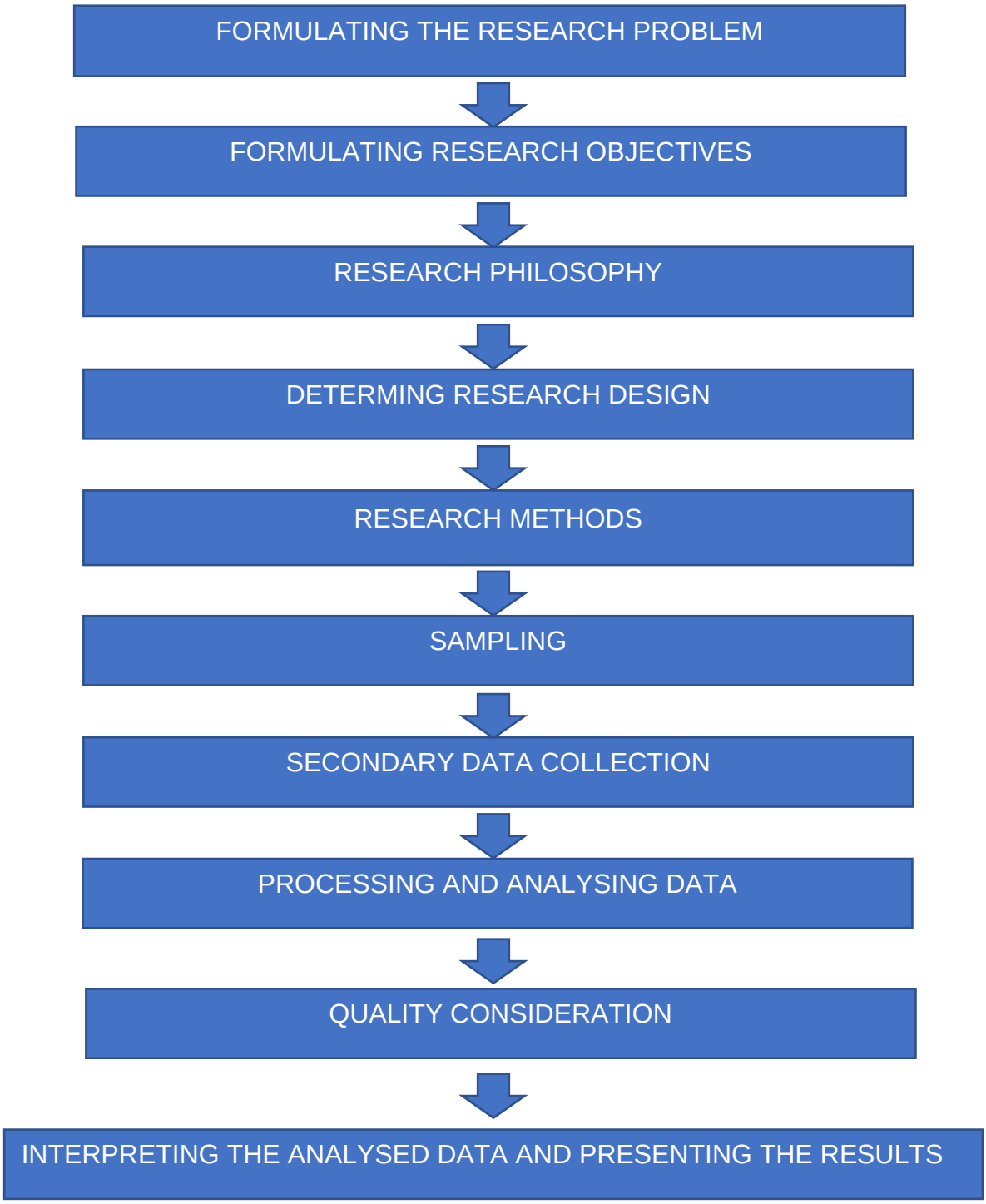

Figure 3.1: Research process
Source: Creswell & Creswell 2018:70; Saunders et al 2009:xix; Kothari 2004:11

These research steps are individually discussed in the sections that follow.

3.2 FORMULATION OF THE RESEARCH PROBLEM

A research problem refers to an area of concern identified by a researcher in the context of either a theoretical or practical situation, whereby the researcher is undertaking a scientific study that aims to obtain a solution (Kothari 2004:24). A good research problem is when the individual or institution does not know the cause of the problem and is in doubt about the solution (Kothari 2004:25). Thus, a research problem is a clear statement of an existing condition that requires the researcher to obtain the best possible solution (Kothari 2004:25). When formulating a research problem, the researcher should ensure that studying the problem will have significant benefits for the participants and other stakeholders (Creswell & Creswell 2018:92). Thus, from observation of annual reports of the public sector, the research problem of this study is the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in South African central government departments is unclear

3.3 FORMULATING THE RESEARCH OBJECTIVES

A research objective can be referred to as a statement that identifies what the researcher aims to achieve as the outcome of the undertaken research (Saunders et al. 2009:600). Research objectives (Section 1.4) provide direction for the study as they summarise the aim of the research.

3.4 RESEARCH PHILOSOPHY

Research philosophy refers to the way in which one views the world. These views are based on assumptions and direct the research design and methods (Saunders et al. 2009:108). “Individuals develop their view of the world based on their discipline orientation and research communities, advisors and mentors and past research experiences” (Creswell & Creswell 2018:5). Individuals have different ways of viewing the world around them, which are also based on their beliefs (Creswell 2014:35).

This study adopted a positivist philosophy. Positivism is an approach used to investigate social phenomena and explain the social world (De Vos, Strydom, Fouché

& Delport 2011:6). Positivist researchers study problems by identifying and assessing the effect of an outcome (Creswell 2014:5). The assumptions concerned with positivism hold more true for quantitative research than for qualitative research (Creswell & Creswell 2018:6). Positivism believes that the research undertaken can be repeated and similar results will be achieved (Rehman & Alharthi 2011:53; Saunders et al. 2009:114). According to De Vos et al. (2011:6), "positivism entails a belief that only those phenomena that are observable, in the sense of being amenable to the senses, can validly be warranted as knowledge".

For the purposes of this study, the positivist approach was followed using an agency perspective in addressing the research objectives. During further data analysis, hypotheses were developed to test the relation between the disclosed audit committee effectiveness variables and the external audit opinion expressed, therefore investigating a social phenomenon as postulated by positivism. The audit committee effectiveness variables were observed through the content analysis of the disclosures of the audit committee characteristics and oversight of financial reporting and assurance processes in the annual reports.

There are different principles concerned with research philosophy, namely ontology (i.e. nature of reality), epistemology (how we know what we know), axiology and methodology (the process of research) (Rehman & Alharthi 2011:51; McGregor & Murnane 2010:421). The remainder of this chapter will focus on the research process followed to address the research objectives; the researcher, as discussed above, takes the position of the positivist (epistemology). The research method employed in this study is discussed in Section 3.6 (methodology).

3.5 DETERMINING THE RESEARCH DESIGN

According to De Vos et al. (2011:143), the research design focuses on the end product and the steps followed in achieving the objectives of the study. There are two developmental research designs, namely a cross-sectional study or longitudinal study. In cross-sectional studies, different groups of populations are used, while in longitudinal studies, a single group population is studied over a period of time (Leedy & Ormrod 2015:157). Longitudinal studies are also correlation studies (Leedy &

Ormrod 2015:158). This study adopted a cross-sectional approach as data from the various government departments were considered at the same point in time. This study also employed a quasi-experimental design allowing the researcher to draw conclusions about the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed (De Vos et al. 2011:149). A quasi-experimental design is used when researchers aim to determine if the independent variables have an effect on the outcome of a dependent variable (De Vos et al. 2011:145). Similarly, this study aimed to test the impact of disclosed audit committee effectiveness variables (independent variable) on the external audit opinion expressed (dependent variable).

In order to achieve the aim and primary objective of the study, the research design included a discussion on the research methods employed, the population from which the sample was selected, the method of processing and analysing the data, the quality considerations and method of interpreting the analysed data, and presenting the results. Sections 3.6 to 3.11 present the different steps followed in the research design.

3.6 RESEARCH METHODS

There are different types of research approaches, including quantitative, qualitative or mixed-method research. Each approach has its own purpose, methods of inquiry, strategies of collecting and analysing the data, and the quality of the criteria (De Vos et al. 2011:63). The quantitative approach uses numerical data, the qualitative approach uses non-numerical data, and the mixed-methods approach uses both numerical and non-numerical data.

The aim of the quantitative approach is to explain, predict and control phenomena (Creswell 2014:83; De Vos et al. 2011:63). Studies that follow the quantitative approach tend to be specific in their research questions or develop hypotheses about variables that can be observable or measurable (De Vos et al. 2011:64). The quantitative approach tends to confirm or modify existing theories or practices (Leedy & Ormrod 2015:98). Only a few variables in quantitative studies are identified and data

are specifically collected for those identified variables (Leedy & Ormrod 2015:99). The unit of measurement method of each variable is identified, developed and standardised, with consideration given to the validity and reliability of the instruments used in measuring the variables (Leedy & Ormrod 2015:99). The sample for quantitative studies is usually drawn from large samples representing a certain population, so generalisation might be made of that population (Leedy & Ormrod 2015:99). The results of the quantitative approach are arrived at using statistical methods or other quantitative procedures (Leedy & Ormrod 2015:100).

The qualitative approach is the method used to explore and understand the meaning that individuals or groups ascribe to a social or human problem (Creswell & Creswell 2018:4). The qualitative approach is generally used in research where the researcher seeks to answer questions about complex situations (De Vos et al. 2011:64). The samples for qualitative studies are usually smaller, and the results are not generalised to the entire population (Leedy & Ormrod 2015:99).

The mixed-method approach uses both the quantitative and qualitative approaches in responding to research objectives (Creswell & Creswell 2018:4; Leedy & Ormrod 2015:100; Saunders et al. 2009:152). This approach provides more insights than when quantitative and qualitative approaches are used separately. For the purpose of this study, the quantitative approach was used as the researcher sought to quantitatively test the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed.

In order to determine the disclosure or non-disclosure of the audit committee effectiveness variables in the annual reports, content analysis was used as an empirical methodology. Research methods refer to techniques and procedures used to collect, analyse and interpret data (Saunders et al. 2009:3). Content analysis is defined as a systematic technique used to evaluate or examine the content of a particular body of material (Leedy & Ormrod 2015:102). Similarly, Mouton (2013:165) defined content analysis as an analysis of the content of text or documents which include letters, speeches and annual reports. Definitions provided by Leedy and Ormrod (2015:275) and Mouton (2013:165) took a broader view of content analysis. According to Mouton (2013:165) ‘content’ refers to words, meanings, pictures,

symbols, themes or any message that can be communicated. Content analysis is predominantly used in studies that focus on forms of human communication, and includes, but is not limited to, legal documents, newspapers, personal journals, music, art and films (Leedy & Ormrod 2015:275).

Neuendorf (2011:277) defined content analysis as “a summarising, quantitative analysis of messages that relies on the scientific method, including attention to objectivity/intersubjectivity, a priori design, reliability, validity, generalisability, replicability, and hypothesis testing”. Cameron and Mclaverty (2008:78) described content analysis “as the quantitative component of document analysis, involving compartmentalising the written material into researcher-selected units or categories”. Moreover, according to Neuendorf (2011:277), content analysis is not limited to the type of message to be analysed or the type of variables that might be measured.

Quantitative content analysis is deductive and aims to test hypotheses or address objectives generated from theories or previous empirical studies (Zhang & Wildemuth 2009:318). Qualitative content analysis is inductive and moves from the specific to the general (Elo & Kyngäs 2008:109). It may be used in conjunction with other methods of data analysis (Leedy & Ormrod 2015:275). Researchers who employ content analysis use a structured method to quantify the content of the qualitative text in a simple, clear format (Cameron & Mclaverty 2008:78). Through content analysis, the researcher is able to distil words into fewer content-related categories (Elo & Kyngäs 2008:108).

However, there are limitations to content analysis. According to Mouton (2013:166), it involves discursive practices which are context-dependent or context-bound and limited in their generalisability. The use of words as a unit of measurement in content analysis is difficult as different people might have different interpretations of different words, thereby taking them out of context (Moloi 2008:85). There are also no clear guidelines for using content analysis (Elo & Kyngäs 2008:113). However, Weber (1990:37) states that the use of word categories inferred from variations among high-frequency words are more reliable than themes.

Content analysis can be used to break down information of a descriptive or experimental study. Studies that follow content analysis tend to collect data by identifying or selecting a sample of specific material to be analysed (Leedy & Ormrod 2015:276). For instance, the content analysis might involve counting frequencies to observe various characteristics in the body of the material (Leedy & Ormrod 2015:276). Descriptive or inferential statistical analyses can also be used depending on the research question (Leedy & Ormrod 2015:276). The primary objective of this study was to determine the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in the South African central government departments. The quantitative approach was thus employed to address the primary and secondary objectives of this study. Appendix A offers the list of audit committee effectiveness variables included in the King Code and an interpretation of variables, where necessary. The keywords used when performing the content analysis of central government departments' annual reports are also mentioned in Appendix A. The statistical tests are discussed in Section 3.9.2.

3.7 SAMPLING

This section provides a discussion of the population and the selected sample. The population of the study, among others, refers to organisations or institutions in which the researcher is interested (De Vos et al. 2011:223). The method used to select a sample and the population from whom the sample was selected should be carefully chosen (Etikan, Musa & Alkassim 2016:2). The total population is described as the total units/participants from whom the researcher intends to select the sample. Sampling refers to the method used to select a small number of organisations or institutions of a population who share similarities in their characteristics (De Vos et al. 2011:223). A sample is selected when testing the total population is not feasible (De Vos et al. 2011:224), and the total population is used when it is relatively small (Etikan et al. 2016:3).

3.7.1 Total population

The South African central government departments (national and provincial departments) was the population of interest for this study. All central government

departments are mandated to adhere to the South African legislation and regulations relevant to the public sector (AGSA 2015a:34). The total population consisted of 38 national departments and 125 provincial departments, as reported in the 2014/15 financial year period. Table 3.1 provides a breakdown of the total population (AGSA 2015e:329-358) and the different audit outcomes achieved by the various central government departments. The time period was selected because at the time data were collected in 2016, the annual reports for the 2014/15 period were the most recent available in the public domain. As a result, audit committee effectiveness variables from the King III Code was used as it was applicable to the financial year 2014/15. King IV was effective from 1 April 2017, being the period after which this study was already in progress.

Table 3.1: Total population and types of external audit opinion

Provinces	No of departments	Unqualified opinion with no findings	Unqualified opinion with findings	Qualified with findings	Adverse audit opinion	Disclaimer of audit opinion	Outstanding audits
National departments							
National department	**38**	11	22	4	0	0	1
Provincial departments							
Western Cape	**14**	**12**	1	0	0	0	1
Gauteng	**16**	**8**	7	1	0	0	0
Free State	**13**	5	6	2	0	0	0
Mpumalanga	**13**	3	7	3	0	0	0
KwaZulu-Natal	**16**	2	9	5	0	0	0
Eastern Cape	**14**	2	9	3	0	0	0
Northern Cape	**13**	2	6	5	0	0	0
Limpopo	**13**	1	9	2	0	1	0
North West	**12**	1	9	2	0	0	0
Total population	**162**	**47**	**85**	**27**	**0**	**1**	**2**

Source: AGSA 2015e:329-358

3.7.2 Sample selection

The technique used in selecting a sample depends on the type of population and the objective of the study. Probability and non-probability sampling techniques are two techniques used for sample selection in quantitative studies. For instance, in probability sampling, the total population has “distinguishing characteristics which are

used for ensuring that each unit in the population has a known, non-zero chance of being included in the sample" (Etikan et al. 2016:1). Probability sampling means that all the participants in the population have an equal chance of being selected. On the other hand, a non-probability sample means each unit does not have an equal chance of being selected (Etikan et al. 2016:1). Non-probability sampling is generally employed when the researcher wants to draw the sample from a population of interest (Etikan et al. 2016:1).

All 38 national departments were selected, as the total population at national level was considered small. This method of sampling, where the total population is selected, is referred to as total population sampling (Etikan et al. 2016:3).

For the nine provinces, purposive sampling was used to select four of the nine provinces in South Africa. The purposive sampling method is used for both qualitative and quantitative studies (Tongco 2007:147), yet according to Etikan et al. (2016:4), purposive sampling is typically used in a qualitative study. However, this does not mean that the purposive sampling method cannot be used in quantitative studies. The sampling method depends on the objective of the study (Etikan et al. 2016:4).

The purposive sampling method is used when the researcher has an understanding of the characteristics of the total population (De Vos et al. 2011:1166). Purposive sampling can also be referred to as judgement sampling since a unit is selected deliberately based on its characteristics (Etikan et al. 2016:2; Tongco 2007:147). Purposive sampling allows the researcher to select a sample that will enable the study to respond to the research objectives (Saunders et al. 2009:237). According to De Vos et al. (2011:232), sampled units should each have most of the characteristics present in the entire population. For the purposes of this study, the four provinces were selected based on their external audit opinions. The two provinces with the highest number of unqualified opinions with no findings and the two provinces with the least number of unqualified opinions with no findings were chosen. Selecting these provinces provided an understanding of the best and worst practices in the entire population of nine provinces. According to Etikan et al. (2016:3), this form of sampling is called 'extreme/deviant case' sampling, which is used when the study seeks to develop a 'best practice'. The results of purposive sampling may not be generalisable

as each unit has a unique value to the study (Etikan et al. 2016:4), only valid for the specific population (Tongco 2007:154).

3.7.3 Sample size

The size of the sample depends on the objective of the study (Saunders et al. 2009:219), and the total population; the smaller the total population, the larger the sample should be in relation to the total population, and *vice versa* (De Vos et al. 2011:224). The sample size also has an impact on the possible statistical tests (De Vos et al. 2011:224), and since this study used statistical tests to analyse the data, it was essential that an appropriate sample size was used.

The four selected provinces consisted of 55[5] provincial departments, which represented 44.5% (55/124) of the total provincial departments in all nine provinces, as indicated in Table 3.1. In aggregate, the sample included 93 departments, representing 57.4% (93/162) of the total population of central government departments. This sample size is supported by De Vos et al. (2011:224-225), who state that a sample size of 32% to 45% is statistically sufficient for a population between 100 and 200 units. Thus, this study's sample of 57.4% of central government departments is deemed sufficient for making statistically significant deductions about the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed.

It is evident from Table 3.1 that Gauteng (eight out of 16 departments) and the Western Cape (12 out of 14 departments) had the highest number of departments with unqualified opinions with no findings. Furthermore, it is clear that Limpopo (one out of 13 departments) and the North West (one out of 12 departments) had the least number of departments with unqualified opinions with no findings (AGSA 2015e:329-358). As stated, these four sampled provinces represent 55 of the 124 provincial departments.

[5] In 2014/15 the North West province had 13 departments. The researcher omitted the department of Economic and Enterprise development from this study by mistake. This department obtained an unqualified opinion with findings, as that one of the 10 other departments. The omission of this department did not materially affect the results of this study.

3.8 SECONDARY DATA COLLECTION AND CAPTURING

3.8.1 Secondary data collection and capturing

This section provides a discussion on the type of data that were collected and the process followed. There are two types of data, namely primary (comes from the original source) and secondary data (material that comes from someone else). This study used secondary data which were collected from the annual reports of the sampled departments.

3.8.2 Data capturing process

Annual reports for the financial year 2014/15 were downloaded from the sampled central government departments' websites. Non-financial information related to the audit committees were collected from the annual reports. The external audit opinions were obtained from the auditor's report in each annual report. The external audit opinions were cross-checked with the consolidated report of audit outcomes prepared and published on the AGSA website.

King III Code recommended practices were used for audit committee effectiveness variables. From the King III Code, 49 audit committee effectiveness variables (refer to Appendix A) were identified and recorded on a Microsoft Excel spreadsheet.

All the annual reports for the South African central government departments are expected to have a section on audit committees, indicated as "Report of the Audit Committee" or "Audit committee report" as required by the National Treasury (RSA 2017:34) . The audit committee effectiveness variables were located during a search of the entire annual report of each of the sampled departments. The audit committee report within each annual report was scrutinised and examined for audit committee effectiveness variables. The "control find" function was used to search for the keywords indicated in Appendix A. When an audit committee effectiveness variable was disclosed in the annual report, it was coded as "1" on the spreadsheet. When the annual report did not disclose an audit committee effectiveness variable, it was coded as "-1" on the spreadsheet. The disclosures and non-disclosures recorded on the

spreadsheet were cross-checked by researcher's colleague. Exceptions were made when capturing the audit committee size and number of meetings, as discussed in Section 3.9.1.2. Only when the department met minimum requirements as recommended by the King III Code was it coded as "1", otherwise it was coded as "-1".

3.9 PROCESSING AND ANALYSING THE DATA

In this section, the data processing and analysis is presented in two sub-sections, namely variable definitions and measurements, and data analysis and procedures.

3.9.1 Variable definitions and measurements

This study analysed the disclosure of variables associated with audit committee effectiveness. According to Creswell (2014:84), variables "refers to a characteristic or attribute of an individual or an organisation that can be measured or observed and that varies among the people or organisation being studied". The impact of audit committee effectiveness variables was measured against the external audit opinion expressed as a proxy for financial reporting quality. Audit committee characteristics and oversight of financial reporting and assurance processes were used as audit committee effectiveness variables. Different types of external audit opinions were used to distinguish financial reporting quality. In this section, the definition and measurement of dependent and individual independent variables are explained. The literature in support of variables was discussed in Chapter 2.

3.9.1.1 Dependent variable

Dependent variables are variables that depend on independent variables and cannot exist on their own (Creswell 2014:84). In order to empirically determine the effect of the disclosed audit committee effectiveness variables in the central government departments, the different types of external audit opinions, as proxies for financial reporting quality, were used as dependent variables. Section 1.1 provided the background and definitions of the different types of audit opinions. The term 'Audit

outstanding', was also included under external audit opinions, but is not regarded as an audit opinion; rather, it indicates that the audit was not completed, as the management of the department failed to submit the financial statements to the AGSA for audit by the date prescribed by the PFMA. The PFMA requires the South African public sector to "submit those financial statements within two months after the end of the financial year to the AGSA" (RSA 1999: Section 40 (1)(c)(i)).

In Table 3.2, the different types of external audit opinions and the value assigned to each based on their order of significance as proxies of financial reporting quality, are presented in this study.

Table 3.2: Ranked values of external audit opinions

Dependent variable	Ranked value
Unqualified opinion with no findings	5
Unqualified opinion with findings	4
Qualified audit opinion	3
Adverse audit opinion	2
Disclaimer of audit opinion	1
Audit outstanding	0

Source: Author

The ranked values in Table 3.2 indicate that an audit opinion associated with the highest financial reporting quality is given the highest-ranked value. As the quality of financial reporting progressively declines, lower-ranked values are assigned to the associated audit opinion. A detailed explanation of audit opinions and their meanings were provided in Section 1.1. This kind of ranking is referred to as 'ordinal ranking' (De Vos et al. 2011:250). This study determined the relation between disclosed audit committee effectiveness variables and the audit opinion expressed. For instance, this study regards an outcome of unqualified opinion with no findings as an indication of higher financial reporting quality as a result of the disclosed audit committee characteristics and oversight of financial reporting, and assurance processes, as discussed in Sections 1.4 and 2.3.2.1.

3.9.1.2 Independent variables

Independent variables are variables that predict the outcome of dependent variables (Creswell 2014:84), and these can be manipulated to influence an outcome (Creswell & Creswell 2018:51). Disclosed audit committee effectiveness variables were used as independent variables for the purposes of this study. Thus, the audit committee effectiveness variables are expected to influence the outcome of the external audit opinion obtained.

This study used audit committee characteristics and oversight of financial reporting and assurance processes as audit committee effectiveness variables. The National Treasury issues the "Annual Report Guide for Schedule 3A and 3C Public Entities" which includes required disclosures in the annual reports and an annexure dealing specifically with required disclosures by audit committees titled "Report of the Audit committee" (RSA 2017:23-24).

The King III Code provides guidance on audit committee characteristics and oversight of financial reporting and assurance processes. Organisations were expected to apply or explain how they have applied the recommendations of the King III Code (IODSA 2009:5) associated with each principle. It is the board's responsibility to disclose how they decided to apply the recommendations differently or disclose if they have applied another practice to achieve the same objectives of the principles (IODSA 2009a:5). This study used the recommendations in the King III Code as the 49 audit committee effectiveness variables for the purposes of factor analysis. Each of the individual independent variables was coded as "1" if disclosed in the annual report and "-1" if not disclosed. The term 'individual independent variable' refers to an individual variable included in the 49 independent variables used in this study. Exceptions were made in the measurements of audit committee meetings and size. As discussed in Sections 2.3.2.3 and 2.3.2.4, the King III Code recommends the audit committee to meet at least twice a year, and the audit committee size to be equal to three or more members. A code of "1" was given when a department disclosed that it had adhered to the King III Code recommended practices on the minimum number of meetings and the number of audit committee members (size), and "-1" if it had not adhered to these recommended practices. Appendix A provides the list of individual independent

variables, including their definitions and keywords used to identify them during the content analysis of annual reports.

3.9.2 Data analysis and procedures

For the analysis of the data, the SPSS version 25 software was used. The data analysis included descriptive statistics, factor analysis – CATPCA – and multivariate regression. Data analysis was conducted in three phases as discussed in the following sub-sections. For Phase 1, the literature and a discussion on the use and results of descriptive statistics in the form of frequencies are presented. For Phase 2, the literature and a discussion on the factor analysis in the form of CATPCA is provided, for Phase 3, the literature and a discussion on the multivariate ordinal logistic regression analysis technique is provided.

3.9.2.1 Phase 1: Descriptive statistics

The descriptive statistics technique – in the form of frequencies – was used as a pre-step for CATPCA. Descriptive statistics aim to describe the collected data as it is (Leedy & Ormrod 2015:154). The frequencies were used to determine the number of departments that disclosed each independent and dependent variable. Further, in Phase 2, descriptive statistics in the form of frequencies were used for further analysis of audit committee effectiveness variables expected to contribute to the primary objective of this study; these results were used when forming factors. In this sub-section, the results of the descriptive statistics on individual independent variables and dependent variables are discussed and presented.

Descriptive statistics results – 49 individual independent variables

The frequencies were run in SPSS in order to determine which of the 49 variables contributed towards achieving the primary objective of this study on the basis of their variability.

Table 3.3 presents the results of the descriptive statistics for all 49 individual independent variables of the sampled 93 central government departments. The statistics reflect the percentage of departments that disclosed each individual

independent variable. Disclosure simply means the department disclosed the audit committee effectiveness variable, not that the variable was actually or correctly implemented.

Table 3.3: Frequencies of disclosure of audit committee (AC)[6] effectiveness variables

No	Audit committee effectiveness variables	Number of the 93 central government departments that disclosed each variable
1	AC Composition, duties and purpose in memorandum of incorporation	93
2	AC review content of summarised information	93
3	AC engage the external auditors to provide assurance on the summarised financial information	93
4	AC risk management role described in charter	93
5	AC reports to board on its statutory and assigned duties	93
6	AC reports to shareholders how statutory duties were carried out	93
7	Established AC	92
8	Number of AC meetings per annum equal or more than two	92
9	AC reports to shareholders the AC view on financial statements and accounting practices	92
10	AC review and comment on Financial Statements	91
11	AC provided summary of role and details on composition, number of meetings and activities in integrated report	91
12	Number of AC members equal or more than three	89
13	Chairman of AC is not chairman of Board	89
14	Statement that AC has sufficient qualifications and experience	76
15	AC meets with internal audit annually	68
16	Info published that supports independence and capacity of AC members	63
17	AC approves internal audit plan	60
18	AC reports to shareholders whether internal financial controls are effective	55
19	AC meets with External auditors annually	46

[6] Abbreviation for audit committee (AC) is used when referring to variable names.

No	Audit committee effectiveness variables	Number of the 93 central government departments that disclosed each variable
20	AC ensure that combined assurance received is appropriate to face all significant risk	28
21	AC oversight of information technology risk related to financial reporting	21
22	AC oversight of financial reporting risk	20
23	AC oversight of internal financial controls	15
24	AC oversight of fraud risk related to financial reporting	10
25	AC terms of reference approved by Board	9
26	Statement that AC members keep up to date	2
27	AC ensures that internal audit function is subject to independent quality review	1
28	Statement that AC may consult	0
29	Statement that board fills AC vacancies / details if not	0
30	Statement that board elects AC chair / details if not	0
31	Statement that board chair involved in setting/ agreeing AC agenda	0
32	AC chair present at annual general meeting - Minutes of annual general meeting	0
33	AC have regard to all factors and risks that may impact on the integrity of the integrated report	0
34	AC review disclosure of sustainability issues in integrated report	0
35	AC recommends to the board to engage an external assurance provider on material sustainability issues	0
36	AC considers the need to issue interim results	0
37	AC monitors relationship between external assurance providers and company	0
38	AC performs annual review of the finance function	0
39	Results of finance function review is disclosed in integrated report	0
40	AC is responsible for the appointment/ dismissal and/or performance assessment of chief audit executive	0
41	AC is responsible for the appointment performance assessment of chief audit executive	0
42	AC nominates external auditor for appointment	0

No	Audit committee effectiveness variables	Number of the 93 central government departments that disclosed each variable
43	AC approves terms of engagement and remuneration of external auditor	0
44	AC monitors and reports on independence of external auditor	0
45	AC define policy and approves non-audit services by external auditor	0
46	AC informed of reportable irregularities identified and reported on by external auditor	0
47	AC review quality and effectiveness of external audit process	0
48	AC reports to shareholders its satisfaction with independence of external auditors	0
49	AC recommends integrated report for approval to the board	0

Source: Author

The results presented in Table 3.3 identify the six of the 49 audit committee effectiveness variables which all 93 departments disclosed and the 11 audit committee effectiveness variables which were disclosed by more than 90% of the departments. Overall, the majority of the departments disclosed only 18 or less out of the total of 49 (36.7%) audit committee effectiveness variables. Thus, in most departments, less than half of the audit committee effectiveness variables were disclosed. Table 3.3 further identifies the 22 of the 49 (44.9%) audit committee effectiveness variables which were not disclosed by a single department as well as the nine of the 49 (18.4%) audit committee effectiveness variables which were disclosed by less than 50% of the departments. It can therefore, be concluded that most departments failed to meet at least 50% of the disclosures related to audit committee effectiveness variables recommended in the King III Code.

Only individual independent variables that indicated variability across departments were used for further descriptive analysis. Individual independent variables that were either present or absent (indicated by 0 (22 variables) and 93 (6 variables)) in all departments' disclosures were omitted from further analysis as they could not contribute to achieving the primary objective of this study. In addition, individual independent variables that were disclosed by or absent from disclosures of 5% or less

of the departments were also excluded from further data analysis as their contribution to achieving the primary objective of this study would be insignificant.

Table 3.3 lists 14 of the 49 audit committee effectiveness variables that were considered to have significant variability (5% or more to either side of disclosed or not disclosed). A 5% variability was used to obtain optimal results from CATPCA. Given that a limited number of the variables showed even the 5% variability between disclosed and non-disclosed, this also ensured as many of the variables were used for further data analysis. As these 14 variables contributed to achieving the primary objective of this study, they were analysed further in Phase 2 and Phase 3.

Table 3.4: Audit committee effectiveness variables with variability

No	Audit committee effectiveness variable
1	Number of AC members equal to or more than three
2	Chairman of AC is not the chairman of Board
3	A statement that AC has sufficient qualifications and experience
4	AC meets with internal auditors annually
5	The information published supports the independence and expertise of AC members
6	AC approves internal audit plan
7	AC reports to shareholders whether internal financial controls are effective
8	AC meets with external auditors annually
9	AC ensures that combined assurance received is appropriate to address all significant risks
10	AC oversight of information technology risk related to financial reporting
11	AC oversight of financial reporting risk
12	AC oversight of internal financial controls
13	AC oversight of fraud risk related to financial reporting
14	AC terms of reference approved by Board

Source: Author

In this section, a discussion and results of the descriptive statistics in the form of frequencies were presented. The variations present in 14 audit committee effectiveness variables indicated they contributed to achieving the primary objective of this study. These variables were analysed further in Phases 2 and 3. The next section offers the literature and discussion on factor analysis using CATPCA as the statistical method employed for further data analyses in this study.

3.9.2.2 Phase 2: Factor development (CATPCA) for further data analysis

Factor analysis is defined as a statistical technique used to reduce or condense the information contained in a number of individual variables into a small set of new,

composite dimensions or variables, with minimum loss of information (Hair, Black, Babin & Anderson 2010:96). The word 'factor' refers to the linear combination of original variables (Hair et al. 2010:92). In this study, the term 'factor variable' is used to refer to a new independent variable formed using CATPCA.

According to Hair et al. (2010:98), there are two types of factor analysis, namely data summarisation and data reduction. With data summarisation, the variables are not reduced, but the researcher can view the set of variables at various levels of generalisation, ranging from the most detailed level to the more generalised level (Hair et al. 2010:98). Data reduction, on the other hand, is achieved by (1) identifying representative variables from a much larger set of variables to be used in multivariate analysis, and (2) creating a new set of variables, much smaller in number, to partly or entirely replace the original set of variables (Hair et al. 2010:99).

The method of factor analysis with the aim of data reduction used in this study is known as CATPCA. According to Linting and van der Kooij (2012:13), CATPCA is used to analyse nonlinear relationships between variables. This study employed the SPSS software tool to implement CATPCA. CATPCA is commonly used when the researcher is using a large number of categorical variables and want to reduce the number of variables (Kemalbay & Korkmazoğlu 2014:731). Prior studies on audit committee effectiveness tended to use one or a small number of individual audit committee variables as proxies for audit committee effectiveness. For instance, most studies used independence, financial expertise, number of meetings, size and the chair of the audit committee individually or in combination as a proxy for audit committee effectiveness (Buallay 2018:185; Madi et al. 2015:487; Othman et al. 2014:331). However, this study focused on audit committee effectiveness variables identified from the King III Code to make statistical sense of their combined impact on the dependent variable, namely the external audit opinion expressed. CATPCA was therefore, employed to statistically reduce the 14 individual independent variables (expected to contribute to the primary objective of this study) based on their factor loadings, in order to determine their combined impact on the external audit opinion expressed (used as a proxy for financial reporting quality).

As an applicable pre-step to this regression, the CATPCA method was adopted to categorise the 14 individual independent variables in order to operationailise the data collected to develop hypotheses. CATPCA was also employed to deal with a possible multicollinearity problem among the various binary variables, and the resulting uncorrelated factors were used for further analysis instead of original possibly correlated variables.

In order to design the factor analysis, the sample size should be considered. The sample size of this study consisted of 93 central government departments, which was appropriate for using CAPTCA as a factor analysis method. The 'rule of thumb 3-1' requires a minimum of 50 units for CAPTCA as factor analysis method (Hair et al. 2010:102). Furthermore, the ratio of departments per variable was 6.6:1 (93/14), which fell within the acceptable limits.

To assess the appropriateness of the CATPCA method and the factorability of the individual independent variables, Hair et al. (2010:129) suggested that visual analysis of the correlation are performed and identified independent variables are correlated. This is done by considering the correlation matrix that indicates the inter-correlation among all variables (Hair et al. 2010:92). A correlation coefficient of a 1 or -1 indicates a perfect correlation, while a correlation coefficient of 0 indicates that there is no relationship between variables. According to Hair et al. (2010:95), correlation analysis assists the researcher to test the validity and variability of the formed factors and to check for correlation among the variables in order to reduce redundancy in possible multicollinearity. The Pearson correlation coefficient test was used to test the validity and reliability of the formed factors. Table 4.8 presents the results of the Pearson correlation coefficients for the factors formed after application of CATPCA.

Determining the number of factors to be formed

The maximum number of factors that can be formed is equal to the total number of individual independent variables used in the study. In this study, 14 individual independent variables were used for further data analysis. In order to determine the number of factors resulting from the CATPCA, the Eigenvalues and Cronbach's Alpha were considered. Eigenvalues indicate a number of variances accounted for in a factor (Hair et al. 2010:92), and only assists in determining the optimal number of factors that

needs to be created in order to determine the amount of variance of the original variables that is accounted for by the factors with an eigenvalue above 1 are considered as significant (Hair et al. 2010:109). Together with the Eigenvalue, the Cronbach's Alpha coefficients were calculated in order to ensure reliability of the factors. Cronbach's Alpha is a reliability coefficient, which is able to examine the consistency of variables. In general, a Cronbach's Alpha value of 0.7 is considered as a minimum to indicate consistency, although a lower value of 0.6 may be considered based on the nature of the data (Hair et al. 2010:125). Figure 4.1 provides the Scree Plot populated from the CATPCA and Table 4.1 presents both the Eigenvalues and Cronbach's Alpha results. The next step is to examine the factor loadings.

Examining the factor loading and labelling of the factors formed

According to Hair et al. (2010:92), factor loading is defined as the "correlation between the original variables and the factors, the key to understanding the key nature of a particular factor". Thus, it may prove difficult to give the factor an all-inclusive name. With the aim of data reduction, the factors are used to identify variables for further data analysis with other techniques or make factors themselves (Hair et al. 2010:99).

Factor loadings of approximately 0.3 to 0.4 are considered to meet the minimum value in order to assist in determining and interpreting the underlying structure of the variables (Hair et al. 2010:117). Factor loadings of 0.5 or above are considered to be significant (Hair et al. 2010:117). In order to determine the structure of the variables and assist in the formation of factor variables, the four factor variables that met the assumptions of factor loadings of greater than 0.3 in absolute value are presented in Table 4.2 to Table 4.5.

The four factor variables formulated following the results of the CATPCA analysis, which were used during further data analysis are:

1. *AC statutory reporting oversight (3 variables)*
2. *AC risk and control oversight (4 variables)*
3. *AC assurance effectiveness oversight (4 variables)*
4. *AC structure and profile (3 variables)*

A further discussion and interpretation of the results of the factor loading is presented in Section 4.2 of this study. These four factor variables, subsuming the 14 individual independent variables that contribute to achieving the primary objective of this study, are used as new audit committee effectiveness variables. As an applicable pre-step in multiple regression, the CATPCA method was adopted to reduce the 14 individual independent variables in order to operationalise the collected data to develop hypotheses.

Hypotheses development for further data analysis

To achieve the objective of this study, CATPCA was employed to reduce and categorise the 14 independent variables into factor variables as a basis for developing hypotheses (Section 4.2) for further data analyses. The number of developed hypotheses is equal to the number of formulated factor variables.

This section provided supporting literature and a discussion on the appropriateness of the use of CATPCA for the purposes of this study. In the next section, the statistical technique, namely multivariate ordinal logistic regression, will be discussed as the method used to test the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed.

3.9.2.3 Phase 3: Further data analysis using multivariate ordinal logistic regression

This section discusses the multivariate ordinal logistic regression used to test the relation between audit committee effectiveness variables and the external audit opinion expressed. Causality refers to the method used when one variable is expected to predict the outcome of another variable (Creswell & Creswell 2018:49). In this study, audit committee effectiveness variables were used to test the outcome of the external audit opinion expressed. Quantitative hypotheses are used to predict the existence of a relationship between two or more variables (Creswell & Creswell 2018:136; Babbie & Mouton 2001:643). The use of quantitative hypotheses was appropriate in this study, as the aim is to test for causality.

According to Babbie and Mouton (2001:466), multiple regression is used when the dependent variable is simultaneously affected by several independent variables. In this study, the impact of various audit committee effectiveness variables on the external audit opinion expressed was tested, thus the use of multiple logistic regression is appropriate. According to Hair et al. (2010:169), multiple regression has two objectives; to maximise the overall power of the independent variables and to compare two or more independent variables to determine the predictive power of each variable. This study aimed to determine the impact of each of the four factor variables on the external audit opinion expressed.

Ordinal logistic regression focuses on the relationship between a set of predictors and an ordinal response variable (Frost 2019:1). According to O'Connell (2006a:2), "the primary characteristics of ordinal data is that the numbers assigned to successive categories of the variables being measured represent the difference in magnitude or a 'greater than' or 'less than' quality". Similarly, Kothari (2004:71) also indicated that the ordinal scale implies a statement 'greater than' and 'less than', and that an equality statement is also appropriate. Thus, it is an easy way to differentiate between possible outcomes, which can best be considered as rank-ordered (O'Connell 2006a:2). The dependent variables (different types of external audit opinions) were ranked in order of their degree of quality and were presented in Section 3.9.1.1 of this study.

For the purpose of hypotheses testing, non-parametric methods were used to measure the statistical significance of the relation between audit committee effectiveness variables and the external audit opinion expressed. The parametric and non-parametric tests were used to test the hypotheses, and they are also known as tests of significance (Kothari 2004:195). Non-parametric tests are used to measure the relationship between two variables when the data are in ranked format (Kothari 2004:139), while the parametric technique is used to test interval data. Since this study tested the relationship between two variables, with the dependent variable being ordinal, the non-parametric technique was appropriate.

In this section, the literature on the multivariate ordinal logistic regression was provided. The next section offers a brief discussion of the evaluation of the quality of the results of this study.

3.10 QUALITY CONSIDERATION

Since this study was quantitative in nature, the validity and reliability of the data results are discussed. Validity is concerned with whether the collected data measure what it is supposed to measure. Collected data are used to address the objectives of the study (Saunders et al. 2009:273). This study used annual reports to identify the disclosed audit committee effectiveness variables. Thus, the information identified from the annual reports related to the disclosed audit committee effectiveness variables. The annual reports were therefore deemed valid to measure the disclosure of audit committee effectiveness variables.

In order to comply with the PFMA requirements, accounting officers are mandated to compile annual reports. The accounting officers use the annual reports to report on government spending and present how the department performed against the targets set for the year (AGSA 2017:144). For the annual reports to be considered as 'good quality', the reports are expected to comply with the statutory and policy requirements and present both positive and negative information in an understandable and concise manner (RSA 2017:4). The information reported in the annual reports should be reliable and credible, with the accounting officer being responsible for the preparation and the audit committee for the oversight thereof.

The publicly available annual reports for the financial year ended 2014/15 were collected from the provincial and national government department websites. Audit committee effectiveness variables were coded using the annual reports. The annual reports for all 93 departments were found and used for the purposes of this study.

According to Hair et al. (2010:93), reliability is described as the "extend to which variable or set of variables is consistent in what it is intended to measure". Reliability is a matter of whether particular techniques would arrive at the same results if they were to be repeated (Babbie & Mouton 2001:119). If multiple measurements are taken, reliability measures will all be consistent in their values. Cronbach's Alpha is another form of test to determine the internal consistency of an instrument (Heale & Twycross 2015:67; Hair et al. 2010:125). Internal consistency is described as the extent to which all the items on a scale measure one construct (Heale & Twycross 2015:67). In this

study, the results of Cronbach Alpha test were used during the CATPCA process in order to ensure reliability of the factor variables as discussed in section 3.9.2.2. of which the results on the CATPCA method are presented in Section 4.2. Appendix A also presents the audit committee variables used and the aspect coded during content analysis of annual reports used to ensure that the data used is reliable and that the study replicated on the same population. The next section briefly discusses how the results of the analysed data would be presented.

3.11 INTERPRETING THE ANALYSED DATA AND PRESENTING THE RESULTS

There are different ways of communicating and displaying analysed data, which includes text, tables, graphs and statistical measures (Kumar 2011:258). For the purposes of this study, the analysed results were communicated using text and displayed using tables, figures and graphs in the form of bar, Scree Plot and column charts.

3.12 ETHICAL CONSIDERATIONS

Research ethics implications were considered in this study. The analysed data were in the form of secondary data contained in the annual reports of the national and provincial departments. The annual reports were downloadable from the public domain. The researcher intends to keep the downloaded annual reports and the coded spreadsheets for a period of five years and store them safely. Ethical clearance was obtained from UNISA prior to the collection of the data. Specifically, approval was received from the Research Ethics Review Committee within the College of Accounting Sciences on the 8 June 2016 with reference number 2016_CAS_028.

3.13 CHAPTER SUMMARY

This chapter described the research process followed in this study. Each step within the research process was discussed under different sections. The literature and a discussion on the formulation of the research problem, objective and philosophy were also provided. Quantitative content analysis was also discussed as the research method employed in this study.

The purposive sampling technique was chosen as a data selection method, and 93 central government departments were selected based on their audit opinion outcomes. The different data analysis methods employed in three phases were discussed, and descriptive statistics and the results of the overall individual independent and dependent variables in the form of frequencies were presented in Phase 1. CATPCA, as a data reduction method using factor analysis, was discussed in Phase 2. Multivariate ordinal regression data analysis as a method to test the hypotheses was discussed in Phase 3. Quality considerations, the methods to be used to interpret and present analysed data, and the results and ethical considerations were also considered.

In the next chapter, the results obtained from the three phases of data analysis are presented and discussed.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In the previous chapter, the data analysis methods employed in this study were discussed. The results of Phase 1 – descriptive statistics on individual independent variables – were also discussed and presented. The purpose of this chapter is to present the results of further data analysis performed in Phase 2 and Phase 3. Phase 2 used factor analysis, particularly the CATPCA method and descriptive statistics on the newly formed factor variables. Phase 3 employed multivariate ordinal logistic regression analysis to test the hypotheses developed from further data analysis in Phase 2.

Multivariate ordinal logistic regression revealed the relation between factor variables as proxies of disclosed audit committee effectiveness variables and the external audit opinion expressed. The chapter ends by summarising the results of the statistical analysis.

4.2 PHASE 2: FACTOR DEVELOPMENT (CATPCA) FOR FURTHER DATA ANALYSIS

The results of Phase 2 are divided into two sections, namely factor formation and further descriptive statistics on factor variables.

4.2.1 Factor formation - CATPCA

In this section, the results of factor formation using the CATPCA method are presented in the form of texts, tables and graphs. First, the eigenvalue and Cronbach Alpha results are presented in order to test the validity and reliability of the factors, followed by the presentation of the factor loading of each factor variable that was formed; these are referred to as factor variables for the purposes of this study. Using the new factor variable names, four hypotheses were also developed and are presented under each factor variable’s discussion.

In order to determine the number of factor variables resulting from the CATPCA, the eigenvalues and Cronbach's Alpha coefficients were considered as discussed in Section 3.9.2.2. Figure 4.1 provides the Scree Plot reflecting the eigenvalues of the 14 individual independent variables used for further analysis.

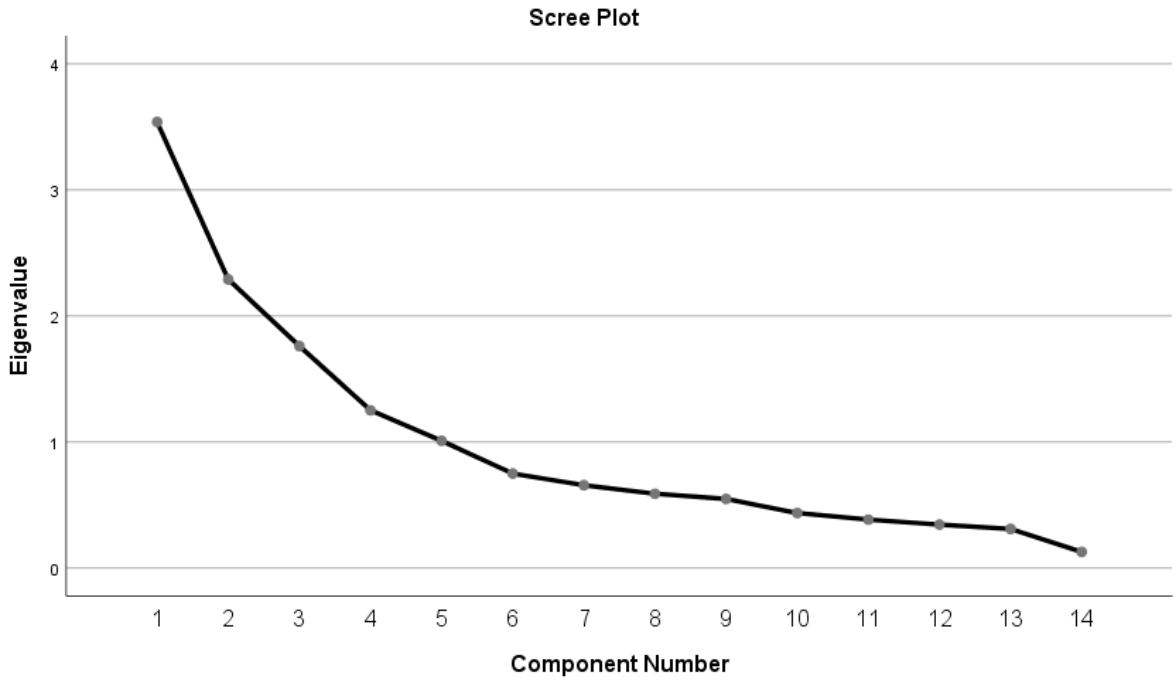

Figure 4.1: Scree plot
Extraction Method: CATPCA
Source: Author

As illustrated in Figure 4.1, the scree plot indicates that four factors (components) can be identified based on an Eigenvalue greater than 1. Table 4.1 presents the Eigenvalue and Cronbach Alpha coefficient for each of the four factor variables that is used for further data analysis. The first factor recorded an Eigenvalue of 2.710 and explained 19.3% of the variance in the transformed variables. The Eigenvalue of the second factor was 2.199, that accounted for 15.7% of the variance. The third and fourth factors represented similar portions of the variance of the underlying variables. Thus, all four factors combined accounted for 63.1% of the variance.

Table 4.1: Cronbach Alpha coefficient and eigenvalues of factor variables

Factor	Cronbach Alpha coefficient	Total (Eigenvalue)	% of Variance accounted for
1	0.718	2.710	19.355
2	0.614	2.199	15.705
3	0.605	1.981	14.153
4	0.626	1.951	13.934
Total	**.955[b]**	**8.841**	**63.147**

Extraction Method: CATPCA
Source: Author

Four factor variables had Cronbach Alpha above 0.6. Thus, sufficient support exists for the formation of four factor variables for further analysis. For the purposes of labelling the factor variables, the individual independent variables factor loadings were considered.

Examining the factor loading, labelling of the factor variables formed and hypotheses development for further data analysis

Table 4.2 to Table 4.5 present the factor loadings of the four factor variables that were formed. As discussed in Section 3.9.2.2, only individual independent variables that yielded a factor loading value of above 0.6 are considered significant, and individual independent variables with factor loadings between 0.3 to 0.4 are considered as a minimum in order to be included in that factor variable. The four factor variables that were formed were further used in the development of the hypotheses as inputs for Phase 3 of data analysis. The hypotheses are also presented below, along with a discussion of each factor variable.

Table 4.2: Factor variable 1 - AC statutory reporting oversight

Individual independent variables subsumed in factor variable 1	Factor loading
AC reports to shareholders whether internal financial controls are effective	**0.832**
Information disclosed that supports independence and expertise of AC members	**0.763**
AC meets with internal auditors annually	**0.521**

Extraction Method: CATPCA
Source: Author

Table 4.2 presents factor variable 1, consisting of three of the 14 individual independent variables (21.4%). CAPTCA shows that all individual independent variables load on one factor with Cronbach Alpha of 0.718 as presented in Table 4.1. Each individual independent variable had a factor loading ranging from 0.521-0.832, which is considered to be acceptable. Factor variable 1 was labelled “AC statutory reporting oversight” as all the variables disclose proxies of effective AC oversight of statutory reporting. South African studies reported disclosure of audit committee oversight were insufficient; these studies posited that audit committees were doing more than they disclosed (Moloi 2015:67; Marx & Voogt 2010:17; Marx 2009:31). Thus, higher levels of disclosure on audit committee statutory reporting oversight are likely to indicate more effective oversight, and a higher level of financial reporting quality. Considering an unqualified opinion with no findings is used as a proxy of the highest level of financial reporting quality, the following hypothesis was developed:

> *H_1 There is a positive association between AC statutory reporting oversight and an unqualified opinion with no findings.*

Table 4.3: Factor variable 2 - AC risk and control oversight

Individual independent variables subsumed in factor variable 2	Factor loading
AC oversight of financial reporting risk	0.909
AC oversight of internal financial controls	0.824
AC oversight of fraud risk related to financial reporting	0.820
AC oversight of information technology risk related to financial reporting	0.610

Extraction Method: CATPCA
Source: Author

Table 4.3 presents four of the 14 individual independent variables (28.6%) subsumed in factor variable 2. CAPTCA shows that all individual independent variables load on one factor with Cronbach Alpha of 0.614 as presented in Table 4.1. Each individual independent variable had a factor loading ranging from 0.610-0.909, which is considered to be significant. Factor variable 2 is labelled as “AC risk and control oversight”, as each individual variable deals with either control or risk oversight by the audit committee. All individual variables included in this factor variable are recommended under Principle 3.8 of the King III Code, which states that “The audit committee should be an integral component of the risk management process” (IODSA 2009a: Principle 3.8). As discussed in Section 2.3.2.4, risk management plays an important role in enhancing financial reporting quality (Cohen et al. 2017:1204). Therefore, it can be expected that higher levels of disclosure about “AC risk and control oversight” is likely to indicate more effective oversight, and a higher level of financial reporting quality. Considering an unqualified opinion with no findings is used as a proxy of the highest level of financial reporting quality, the following hypothesis was developed:

> *H_2 There is a positive association between AC risk and control oversight and an unqualified opinion with no findings.*

Table 4.4: Factor variable 3 - AC assurance effectiveness oversight

Individual independent variables subsumed in factor variable 3	Factor loading
AC approves the internal audit plan	0.776
AC meets with external auditors annually	0.729
AC ensures that combined assurance received is appropriate to face all significant risks	0.668
AC terms of reference approved by Board	0.565

Extraction Method: CATPCA
Source: Author

Table 4.4 presents four of the 14 individual independent variables (28.6%) subsumed in factor variable 3. CAPTCA shows that all individual independent variables load on one factor with Cronbach Alpha of 0.605, as presented in Table 4.1. Each individual independent variable had a factor loading ranging from 0.565-0.776, which is considered to be acceptable. Factor variable 3 is labelled as "AC assurance effectiveness oversight", as three of the individual variables relate to oversight of internal and external assurance providers, while the fourth individual variable, "AC terms of reference", indirectly contributes to the oversight by sensitising the audit committee to its oversight responsibilities. Audit committee oversight of assurance providers is essential for ensuring the effectiveness of assurance services (Al-Mamun, Yasser, Rahman, Wickramasinghe & Nathan 2014:900; Zaman & Sarens 2013:506). The interactions between the audit committee and the internal auditors, external auditors and management influence the effectiveness of oversight (Zaman & Sarens 2013:498). Furthermore, interactions enable the audit committees to resolve conflicts between assurance providers and management, enhancing the effectiveness of the assurance providers (Klein 2002:378).

An audit committee that often meets with the external auditors was found to improve the audit quality (Beattie et al. 2013:56). Meetings between the audit committee and the external auditors also improve the effectiveness of the audit process, while the audit committee's oversight of internal audit activities improves the internal audit function (Abdullah et al. 2018:1). Thus, "AC assurance effectiveness oversight" is essential for a higher quality of financial reporting. Considering an unqualified opinion

with no findings is used as a proxy of the highest level of financial reporting quality, the following hypothesis was developed:

> *H_3 There is a positive association between AC assurance effectiveness oversight and an unqualified opinion with no findings.*

Table 4.5: Factor variable 4 - AC structure and profile

Individual independent variables subsumed in factor variable 4	Factor loading
AC is not the chairman of Board	0.827
AC members equal to or more than three	0.751
AC has sufficient qualifications and experience	0.712

Extraction Method: CATPCA
Source: Author

Table 4.5 presents three of the 14 individual independent variables (21.4%) subsumed in factor variable 4. CAPTCA shows that all individual independent variables load on one factor with Cronbach Alpha of 0.626 as presented in Table 4.1. Each individual independent variable had a factor loading ranging from 0.712-0.827, which is considered to be significant. This factor variable is labelled “AC structure and profile” as all the individual variables relate to audit committee characteristics. As discussed in Section 2.3.1, audit committee characteristics are commonly used as proxies of audit committee effectiveness (Kibiya et al. 2016:126; Ghafran & O’Sullivan 2013:381). The literature reports that these characteristics affect the effectiveness of oversight that is provided (Buallay 2018:185; Madi et al. 2015:487; Othman et al. 2014:331). For example, the audit committee chair, size, qualifications and experience determine financial reporting quality (Appiah & Amon 2017:298; Inaam & Khamoussi 2016:179; Ghafran & O’Sullivan 2013:381). Further literature on the audit committee chair was provided in Section 2.1.3.5, audit committee size was discussed in Section 2.1.3.4, and audit committee qualifications and experience were discussed in Section 2.1.3.2. Considering an unqualified opinion with no findings is used as a proxy for the highest level of financial reporting quality, the following hypothesis was developed:

H_4 There is a positive association between AC structure and profile and an unqualified opinion with no findings.

Comparison of King III Code recommended practices and the PFMA and National Treasury Regulations

In order to motivate the importance of the 14 individual independent variables (identified from King III Code) being subjected to further data analyses on the basis of the variable disclosures across departments, they were compared to public sector legislation. Table 4.6 presents the comparison.

Table 4.6: Comparison between the recommended practices of the King III Code and the regulations of the PFMA and National Treasury

No	Audit committee (AC) effectiveness variables (IODSA 2009a)	Addressed in legislation (tick) or not (x)	PFMA (RSA 1999) & National Treasury Regulation (RSA 2005)
1	AC Terms of reference approved by the board	√ Approval of the terms of reference in regulation not addressed	RSA (2005: Section 27.1.7) It must be disclosed in the entity's annual report whether or not the audit committee has adopted formal terms of reference, and if so, whether the committee satisfied its responsibilities for the year in compliance with its terms of reference.
2	AC meets with internal audit annually	x	Not addressed.
3	AC meets with external auditors annually	√	RSA (2005: Section 27.1.13 & 3.1.16) The audit committee must meet at least annually with the Auditor-General or the external auditor, whichever applicable, to ensure that there

No	Audit committee (AC) effectiveness variables (IODSA 2009a)	Addressed in legislation (tick) or not (x)	PFMA (RSA 1999) & National Treasury Regulation (RSA 2005)
			are no unresolved issues of concern.
4	The information published supports the independence and expertise of AC members	√	RSA (2005: Section 3.1.5) Audit committees must be constituted to ensure their independence, and their membership must be disclosed in the annual report of the institution.
5	Number of AC members equal to or more than three	√	RSA (1999: Section 77(a)) Must consist of at least three persons.
6	Chairman of AC is not the chairman of the board	√ Independence of audit committee addressed by both, but different	RSA (1999: Section 77(a)(ii)) Chairperson may not be in the employ of the department.
7	A statement that AC has sufficient qualifications and experience	√ Similar by implication	RSA (2005: Section 27.1.4) The majority of persons serving on an audit committee must be financially literate.
8	AC ensures that combined assurance received is appropriate to face all significant risks	√	RSA (2005: Section 27.1.8) The audit committee must, among others, review the following: (b) the effectiveness of internal

No	Audit committee (AC) effectiveness variables (IODSA 2009a)	Addressed in legislation (tick) or not (x)	PFMA (RSA 1999) & National Treasury Regulation (RSA 2005)
			audit (RSA 2005: Section 27.2.9). The internal audit function must co-ordinate with other internal and external providers of assurance to ensure proper coverage and to minimise duplication of effort.
9	AC approves internal audit plan	√	RSA (2005: Section 3.2.7) An internal audit function must prepare, in consultation with and for approval by the audit committee- (c) plans indicating the proposed scope of each audit in the annual internal audit plan.
10	AC oversight of internal financial controls	√	RSA (2005: Section 3.1.13(a)) the effectiveness of the internal control.
11	AC oversight of financial reporting risk	√	RSA (2005: Section 27.1.8(c)) the risk areas of the entity's operations to be covered in the scope of internal and external audits.
12	AC oversight of fraud risk related to financial reporting	√	
13	AC oversight of information technology risk related to financial reporting	√	

No	Audit committee (AC) effectiveness variables (IODSA 2009a)	Addressed in legislation (tick) or not (x)	PFMA (RSA 1999) & National Treasury Regulation (RSA 2005)
14	AC reports to shareholders whether internal financial controls are effective	√	RSA (2005: Section 3.1.13(a)) the effectiveness of the internal control.

Source: Author

A comparison of the disclosure requirements of King III Code (IODSA 2009), the PFMA (1999) and the National Treasury Regulations (2005), find that 13 of the 14 (92.9%) individual independent variables used for further data analysis in Table 4.6 are addressed by all three sources, thus constituting legislated disclosure requirements.

However, some of the individual independent variables were addressed somewhat differently in legislation and regulation. For instance, the “AC terms of reference approved by board” variable was partially addressed in the legislation. The National Treasury Regulations only made reference to the terms of reference being adopted and not the approval thereof (RSA 2005: Section 27.1.7). Thus, it is unclear if these terms of reference were approved by the executive authority. Another variable which was not fully addressed in the legislation was “Chairman of AC is not the chairman of the board”. According to the PFMA (RSA 1999: Section 77(a)(ii)), the audit committee “chairperson may not be in the employ of the department”, which supports the King III Code recommended practice that the chair should not be an executive. However, the legislation does not state that the chair of the audit committee should not be the chair of the board, as recommended by the King III Code (IODSA 2009a: Recommended practice 3.2.3). Note that the board, in the context of a central government department, is referred to as the executive authority (Section 1.6 for more details). Another variable that was included in the legislation by implication is the recommendation that “A statement that AC has sufficient qualifications and experience” should be disclosed.

Legislation required the majority of the audit committee should be financially literate, implying minimum qualifications are required (RSA 2005: Section 27.1.4).

The only one of the 14 individual independent variables from the King III Code which is not prescribed in the legislation or National Treasury Regulations is “AC meets with internal audit annually”. Thus, disclosure of this individual independent variable would imply voluntary disclosure by the central government departments. An audit committee that meets with the internal auditors is expected to be effective, as the audit committee is able to keep up to date with the affairs of the organisation with the assistance of internal audit (Abdullah et al. 2018:11; Zaman & Sarens 2013:512). Thus, this individual independent variable is considered as important as it forms part of the process followed by audit committees in the performance of their oversight of internal audit function, as discussed in Section 2.3.2.2.

Thus, the disclosure of audit committee effectiveness variables is essential to enhance the stakeholders’ confidence in the value of audit committees in an organisation, as discussed in Section 2.4.

4.2.2 Further descriptive statistics on factor variables

Descriptive statistics on the four factor variables are presented in Table 4.7 in the form of minimum, maximum, means and standard deviations. These descriptive statistics are based on the minimums (0) and maximums (1 times the number of individual independent variable subsumed in the factor variable), disclosures by departments.

Table 4.7: Descriptive statistics for the four factor variables

Factor variables	Population	Minimum	Maximum	Mean	Std. Deviation
AC statutory reporting oversight	93	0.00	3.00	2.0000	1.08347
AC risk and control oversight	93	0.00	4.00	0.7097	1.23869
AC assurance effectiveness oversight	93	0.00	4.00	1.5376	1.24725
AC structure and profile	93	0.00	3.00	2.7312	0.62797

Extraction Method: descriptive statistics
Source: Author

As depicted in Table 4.7, each factor variable had incidents where all or none of the individual variables subsumed in it were disclosed, or not disclosed by one or more departments. Incidents, where none of the individual variables were disclosed by a department, is alarming as most of the individual variables are legislated requirements (Section 4.2). The factor variable “AC structure and profile” had the most incidents of disclosure of all the individual variables by a department, reflected by its highest mean value of 2.7312, implying that almost all the departments disclosed all three of the independent variables included in this factor variable. This is followed by progressively fewer incidents of such disclosure for “AC statutory reporting oversight”, with a mean value of 2.000 out of a possible three independent variables. “AC assurance effectiveness oversight” with a mean of 1.5376 out of a possible four independent variables, and “AC risk and control oversight” with a mean of 0.7097 out of a possible four independent variables. Figures 4.2 to 4.5 provide further details of disclosure trends for each factor variable.

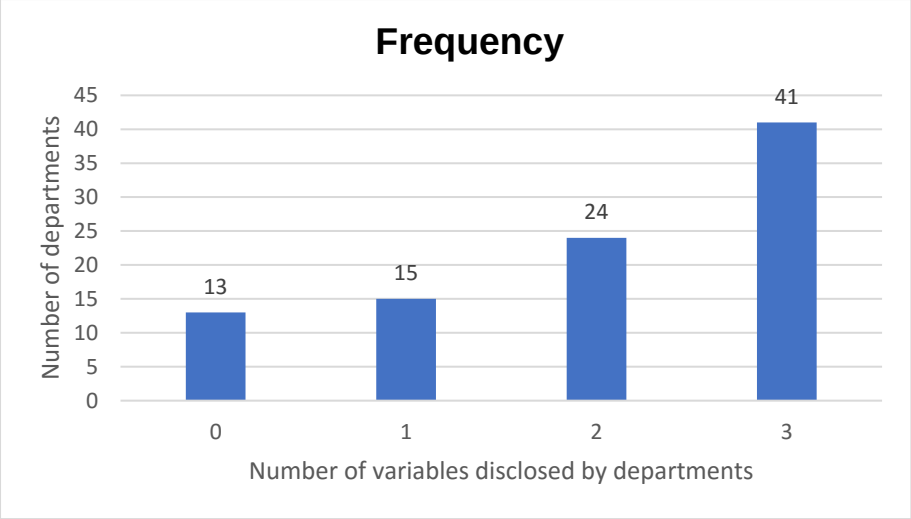

Figure 4.2: Factor variable 1: AC statutory reporting oversight
Source: Author

It is evident from Figure 4.2 that 44% (41 of 93) of the departments disclosed all three individual independent variables subsumed in this factor variable, while 69.9% (65 of 93) disclosed at least two. The lower than expected disclosure rate can possibly be explained by the fact that one of the three individual independent variables included in this factor variable (AC meets with internal auditors annually) are not prescribed by legislation (PFMA and the National Treasury Regulations), as discussed in Section 4.2.1.

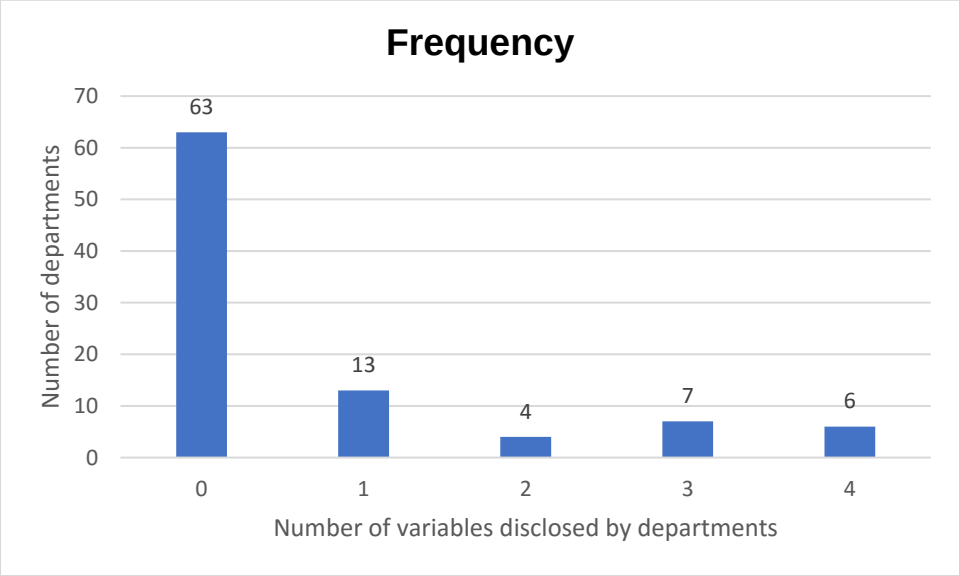

Figure 4.3: Factor variable 2: AC risk and control oversight
Source: Author

Only 6.5% (6 of 93) of departments disclosed all individual independent variables subsumed in the “AC risk and control oversight” factor variable, as presented in Figure 4.3. Moreover, the majority of the departments (63) did not disclose any of the variables subsumed in this factor variable. This is concerning since all the individual independent variables included in this factor variable are prescribed by legislation. The non-disclosure could imply that the audit committees of central government departments are not meeting their expected risk management oversight responsibilities.

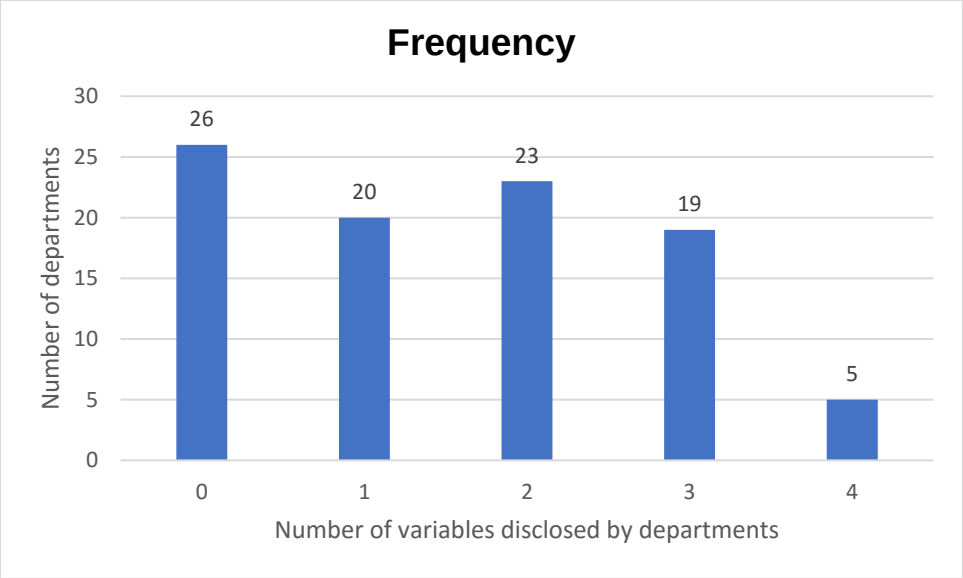

Figure 4.4: Factor variable 3: AC assurance effectiveness oversight
Source: Author

Only 5.4% (5 of 93) of departments disclosed all four individual independent variables subsumed in the “AC assurance effectiveness oversight” factor variable, as presented in Figure 4.4. Although one of the individual independent variables “AC terms of reference approved by board” is only partially addressed by legislation, as discussed in Section 4.2.1, the expectation was that the other three variables would have been disclosed by all the departments. This was clearly not the case. Only 25.8% (24 of 93) of the departments disclosed at least three of the individual independent variables.

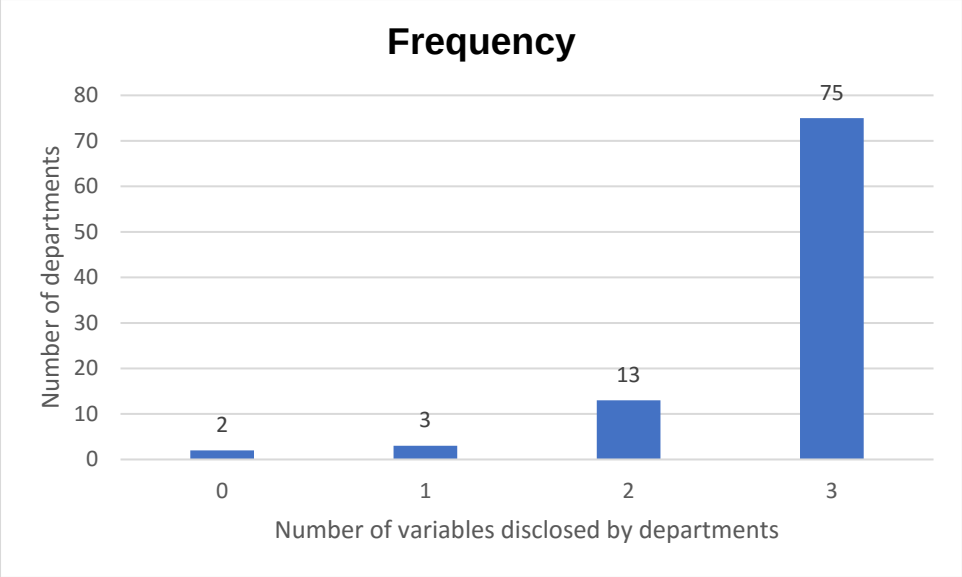

Figure 4.5: Factor variable 4: AC structure and profile
Source: Author

Figure 4.5 presents the disclosure patterns for the "AC structure and profile" factor variable. All three of the individual independent variables subsumed in this factor variable are prescribed by legislation. This factor variable had the highest mean value (2,7312), meaning most departments disclosed all three individual independent variables in their annual reports. Figure 4.5 shows 80.6% (75 of 93) of the departments disclosed all three individual independent variables, while 94.6% (88 of 93) disclosed at least two. The reason for the high disclosure pattern may be that the information linked to the audit committee chair and the number of audit committee members are objective and more easily determinable than some of the other more subjective disclosures required.

Figure 4.6 presents the frequencies for each type of external audit opinion obtained by departments.

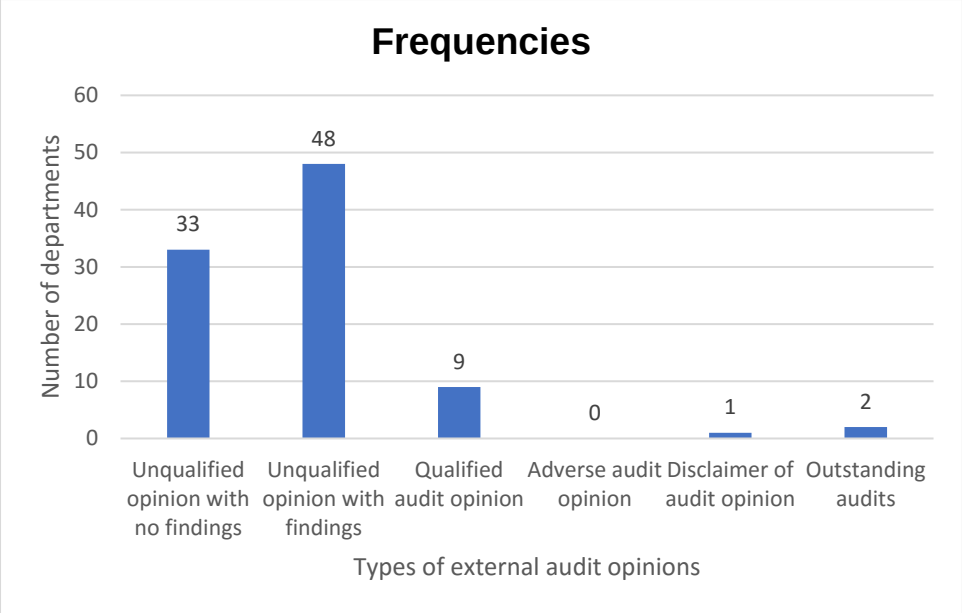

Figure 4.6: External audit opinions obtained by departments
Source: Author

Figure 4.6 indicates only 35.5% (33 of 93) of the departments obtained unqualified audit opinions with no findings. The majority of 51.6% (48 of 93) of the departments, obtained an unqualified opinion with findings. The departments that obtained qualified audit opinion were 9.7% (9 of 93), while 1.1% (1 of 93) obtained a disclaimer of audit opinion. A total of 2.2% (2 of 93) of departments had outstanding audits. None of the departments obtained an adverse audit opinion. The definition of each type of external audit opinion is presented in Section 1.1.

This section reviewed the results of descriptive statistics in the form of frequencies of the four factor variables formed using CATPCA. The next section presents and interprets the results obtained from the multivariate ordinal logistic regression as a statistical technique used to test the hypotheses developed during further data analysis, presented in Section 4.2.

4.4 PHASE 3: MULTIVARIATE ORDINAL LOGISTIC REGRESSION

Multivariate ordinal logistic regression was employed to test the four hypotheses developed in Section 4.2.1. Pearson correlation coefficients were calculated in order to ensure that no multicollinearity exists between the factor variables to be used in the multivariate ordinal logistic regression. Firstly, Table 4.8 presents the results of the

Pearson correlation coefficients for the factor variables in the form of a correlation matrix, indicating the inter-correlation among the four factor variables (Hair et al. 2010:92). A correlation coefficient of a positive or negative 1 indicates a perfect correlation, while a correlation coefficient of 0 indicates that there is no relationship.

Table 4.8: Pearson correlation coefficients

Factor variables	AC statutory reporting oversight	AC risk and control oversight	AC assurance effectiveness oversight	AC structure and profile
AC statutory reporting oversight	1			
AC risk and control oversight	0.389	1		
AC assurance effectiveness oversight	0.056	0.109	1	
AC structure and profile	0.24	0.136	0.214	1

Source: Author

Table 4.8 shows that the highest correlation between the factor variables existed between “AC statutory reporting oversight” and “AC risk and control oversight”, with a coefficient of 0.389; this association is considered relatively weak. The results, therefore, can be construed to indicate that little to no multicollinearity existed among the factor variables, and therefore all the factor variables can be included in the regression analysis.

Secondly, Table 4.9 presents the results of the “goodness-of-fit” test for using the ordinal logistic regression model, based on the Deviance and Pearson chi-square tests. These tests determine whether multivariate ordinal logistic regression is appropriate for the data. If the results of the “goodness-of-fit” tests are found to be non-significant, multivariate ordinal logistic regression fits the data well (Kemalbay & Korkmazoğlu 2014:734).

Table 4.9: Goodness-of-Fit

Goodness-of-Fit			
	Chi-Square	**df**	**Sig.**
Pearson	116.505	125	0.694
Deviance	89.479	125	0.993

Source: Author

Table 4.9 shows that both the Pearson Chi-square test [χ^2 (125) =116.505, p=0.694] and the Deviance test [χ^2 (125) =89.479, p=0.993] were not significant given that their p-values are greater than 0.05. Thus, both tests indicate multivariate ordinal logistic regression fits the data well.

Thirdly, the multivariate ordinal logistic regression is employed to examine the relationship between a single independent variable and various other independent variables (Hair et al. 2010:161). One of the assumptions for this type of regression is one of proportional odds, indicating that the variables have the same effects when compared across the data (Osborne 2016:147; O'Connell 2006:3). When the result of the test of Parallel Lines indicate non-significance, it may be interpreted to mean that the variables have the same effects when compared across the data (O'Connell 2006:3).

Table 4.10: Test of parallel lines

Test of Parallel Lines				
Model	**-2 Log Likelihood**	**Chi-Square**	**df**	**Sig. (p-value)**
Null Hypothesis	127.963			
General	121.412	6.551	8	0.586

Source: Author

Table 4.10 indicates that the p-value of the Chi-Square test is 0.586, which is greater than 0.05, meaning it is not significant. Therefore, the null hypothesis for the test of

Parallel Lines is not rejected, reflecting that their proportional odds do exist; this implies that the factor variables have the same effects when compared across data. As the assumption is satisfied, multivariate ordinal logistic regression can be employed.

Fourthly, in order to specifically test this study's research hypotheses, the output from the multivariate ordinal logistic regression regarding each of the factor variables needs to be interpreted. Statistical significance in multivariate ordinal logistic regression is determined by using the Wald test or the Likelihood ratio to calculate the Chi-Squares. It is unclear which of the two tests mentioned is superior (Gudicha, Schmittmann & Vermunt 2017:1825). The use of the Likelihood ratio is typically associated with the test of both the null and alternative hypothesis models, while the Wald test is concerned with testing only the alternative hypothesis (Gudicha et al. 2017:1825). Thus, using only the Wald test might be less powerful. This study, therefore, applied both tests to determine the statistical significance of the multivariate ordinal logistic regression. Table 4.11 presents these results.

Table 4.11: Likelihood ratio and Wald test Chi-squares

Factor variables	Likelihood Ratio			Wald Test		
	Chi-Square	df	Sig. (p-value)	Chi-Square	df	Sig. (p-value)
AC statutory reporting oversight	1.827	1	0.177	1.800	1	0.180
AC risk and control oversight	0.211	1	0.646	0.211	1	0.646
AC assurance effectiveness oversight	0.590	1	0.442	0.588	1	0.443
AC structure and profile	5.250	1	0.022	5.324	1	0.021

Source: Author

As shown in Table 4.11, small differences exist among the Chi-squares of the Likelihood Ratio and the Wald test. The p-values obtained from both tests confirm that the only factor variable with statistical significance in influencing the odds of obtaining an unqualified opinion with no findings in central government departments is “AC structure and profile” (p-value = 0.021).

Table 4.12 presents further results of the multivariate ordinal logistic regression using odds ratios.

Table 4.12: Odds ratios from the multivariate ordinal logistic regression

Parameter		B	Std. Error	Exp (B)	95% Wald Confidence Interval for Exp (B)	
					Lower	Upper
Threshold	[Audit opinion =1.00]	-0.836	0.9592	0.434	0.066	2.841
	[Audit opinion =3.00]	0.778	0.8886	2.176	0.381	12.420
	[Audit opinion =4.00]	3.523	0.9702	33.874	5.059	226.818
AC statutory reporting oversight		0.282	0.2100	1.325	0.878	2.000
AC risk and control oversight		-0.080	0.1749	0.923	0.655	1.300
AC assurance effectiveness oversight		0.129	0.1687	1.138	0.818	1.584
AC structure and profile		0.790	0.3424	2.203	1.126	4.311

Source: Author

The odds ratio is the probability of an event occurring or not occurring (Hair et al. 2010:338). “The odds ratio gives the multiplicative change in the odds of success so that when its associated predictor increases, the probability of success increases if the parameter is positive and decrease in the opposite case” (Aguilera, Escabias & Valderrama 2006:1907). This implies that the odds or probability of obtaining an unqualified opinion with no findings increases when the odds ratio is greater than 1

and decreases if the odds ratio is less than 1. More specifically, an odds ratio higher than 1 suggests that the probability of obtaining an unqualified opinion with no findings increases (or more variables in that factor variable are disclosed) as the value of an independent variable increases, whereas an odds ratio less than 1 suggests a decreasing probability of obtaining an unqualified opinion with no findings that the value of an independent variable increases (or more variables in that factor variable are disclosed). The odds ratio, represented by Exp (B) in Table 4.12, therefore reflects that the multiplicative change in the odds of receiving a better audit opinion for every unit increase in the specific factor variable (more variables disclosed), holding the remaining factor variables constant.

From the results in Table 4.12, the only factor variable found to be statistically significant is “AC structure and profile”, with an odds ratio of 2.203. This ratio indicates that the odds of receiving an unqualified opinion with no findings increases by a factor of 2.203 for every unit increase in disclosure of “AC structure and profile”. An increase in the factor variable “AC structure and profile” requires an increase in the number of disclosures by the departments of the three individual independent variables subsumed in the factor variable. This would result in an increased probability of receiving an unqualified opinion with no findings.

The remaining multivariate ordinal logistic regressions of the other factor variables are also interpreted using the odds ratio, despite them not being statistically significant predictors of the type of audit opinion expressed. For “AC assurance effectiveness oversight” and “AC statutory reporting oversight” the odds of receiving an unqualified opinion with no findings increases by a factor of 1.138 and 1.325, respectively, for every unit increase in disclosures of the subsumed individual independent variables by the departments. However, increased disclosures about “AC risk and control oversight” is unlikely to have any influence on the external audit opinion expressed, as it has an Exp (B) value below 1. Given that this odds ratio is very close to 1, this implies changes in disclosure patterns will have little to no predicted effect on the likelihood of changing the type of audit opinion expressed.

The 95% Wald confidence level is used as a measure of the likelihood or unlikelihood of a variable being statistically significant (Battle & Rakow 1993:78). Considering the

95% Wald confidence interval, there is some probability that if any additional individual independent variables are disclosed across all four factor variables, the department might obtain an unqualified opinion with no findings. As illustrated in Table 4.10, even the factor variables that did not have a statistically significant effect on the type of external audit opinion expressed, namely “AC statutory reporting oversight”, “AC risk and control oversight” and “AC assurance effectiveness oversight”, had upper 95% Wald confidence levels above 1.

In this section, the results revealed a probability that all four hypotheses support a positive association between each of the factor variables and the probability of an unqualified opinion with no findings. However, only one factor variable, namely “AC structure and profile”, had a statistically significant impact on the type of audit opinion expressed. The next section provides additional observations identified during data collection.

4.5 ADDITIONAL OBSERVATIONS

The National Treasury Regulations require central government departments to disclose the remuneration of all members of a audit committee in the notes to the financial statements of the departments (RSA 2005: Section 20.2.4). In the process of analysing the annual reports, the researcher observed that the central government departments did not disclose the remuneration of the audit committee members as required by legislation. Upon inspection of the annual report template issued by the National Treasury to the departments, it was further noted that the remuneration of the audit committee members was not included as a disclosure item.

This implies that not all legislated disclosure requirements are contained in the annual reporting templates of the National Treasury provided to the departments, which may explain shortcomings in disclosure.

4.6 CHAPTER SUMMARY

In this chapter, the data analysis and interpretation of the results of the two phases were presented. Phase 2 presented the results of the CATPCA and descriptive statistics on newly formed factor variables. Four factor variables were formed using CATPCA. Based on the results of the additional descriptive statistics, the central government departments' disclosure was concerning, as 13 of the 14 audit committee effectiveness variables were legislated but partially disclosed by the majority of departments. Most departments disclosed most of the individual variables subsumed in the "AC structure and profile" factor variable.

Phase 3 presented the results of multivariate ordinal logistic regression analysis for hypotheses testing. The results of the hypotheses tests indicated that "AC structure and profile" was the only factor which had a statistically significant association with unqualified opinion with no findings. The results further indicated that the factors "AC statutory reporting oversight", "AC risk and control oversight" and "AC assurance effectiveness oversight" did not have a statistically significant association with an unqualified opinion with no findings, however, some probability of positive association between these factor variables and an unqualified opinion was found when considering the 95% Wald test confidence interval. Thus, the results provided evidence of having a positive association between disclosed audit committee effectiveness variables and an unqualified opinion with no findings.

The next chapter will provide the recommendations and conclusions of this study.

CHAPTER 5: RECOMMENDATIONS AND CONCLUSIONS

5.1 INTRODUCTION

Chapter 4 presented the research results and the interpretation of the results. This chapter includes an overview of the study, which briefly summarises the purpose and conclusion of each chapter, followed by a section providing a summary of the results on how the primary objective was achieved. Thereafter, the limitations and recommendations of the study are presented, along with some concluding remarks.

5.2 OVERVIEW OF THE STUDY

Chapter 1 provided the background of audit committees in South Africa and the challenges faced by the South African public sector audit committees. The stated aim and primary objective of the study was: "*to determine the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in the South African central government departments"*. The significance of disclosures of audit committee effectiveness variables in the context of the audit committee's responsibility for oversight of financial reporting and assurance processes were explained. Particularly, the impact of audit committee effectiveness on the type of external audit opinion expressed, as a proxy of financial reporting quality, was underlined. In order to gain an understating of current disclosure practices of audit committee effectiveness variables, a review of South African literature was provided.

The South African King III Code (IODSA 2009a) and Reports were regarded as the best practice for corporate governance at the time when the annual reports used by this study were downloaded and analysed. In order to address the primary objective of this study, two secondary objectives were formulated as follows:

1. To analyse the King III Code for variables associated with audit committee effectiveness.

2. To analyse annual reports of central government departments for the disclosure or non-disclosure of variables associated with audit committee effectiveness (as identified in secondary objective 1).

Chapter 2 presented an overview of the relevant literature on audit committee effectiveness. The agency theory perspective was applied as the audit committee is recognised as a corporate governance mechanism that addresses the risks inherent in the separation of control between agents (management) and principals (shareholders). In particular, audit committee characteristics and the oversight of financial reporting and assurance processes as proxies for audit committee effectiveness were considered. The audit committee characteristics that were discussed included independence, financial expertise, number of meetings, size of the audit committee and the audit committee chair. Furthermore, audit committee oversight of the financial reporting and assurance processes, which include the external audit function, the internal audit function and risk management were also identified as variables influencing financial reporting quality. Thus, the literature suggested that audit committee characteristics and oversight of financial reporting and assurance processes influence the type of external audit opinion expressed, as a proxy of financial reporting quality.

Chapter 3 presented the research methodology employed to address the primary and secondary objectives of this study. Research processes, as illustrated in Figure 3.1, included the research philosophy, research design and research methods. The positivist approach was motivated and considered. To meet the objectives of this study, quantitative content analysis was employed as the initial research method. Annual reports from 93 central government departments (national and provincial departments) were analysed and coded in a spreadsheet containing 49 audit committee effectiveness variables. These 49 audit committee effectiveness variables were extracted from the King III Code (IODSA 2009a), and are presented in Appendix A.

Data analysis comprised three phases. For Phase 1, the literature on descriptive statistics in the form of frequencies was discussed and the results of descriptive statistics were presented and interpreted. The results of the descriptive statistics

revealed that only 14 of the 49 individual independent audit committee effectiveness variables indicated potential significant variation. Thus, these 14 individual independent audit committee variables were used for further data analysis. For Phase 2, the literature on factor analysis using CATPCA and hypothesis development were discussed and motivated as a statistical analysis method employed in this study. Lastly, for Phase 3, the literature on multivariate ordinal logistic regression was presented and motivated as a statistical analysis method for this study.

Chapter 4 provided and interpreted the results of Phases 2 and 3's data analysis. The results of Phase 2 were divided into two sub-sections, namely factor variable formation using CATPCA, and further descriptive statistics on the factor variables that were formed. Four factor variables were formed by considering factor loadings. All four factor variables satisfied the assumptions of factor analysis which include eigenvalue greater than 1 and Cronbach's Alpha coefficients greater than 0.6. The four factor variables each had a factor loading above 0.5, meaning they were significant. The four factor variables were formed and labelled as follows:

1. *AC statutory reporting oversight (3 variables)*
2. *AC risk and control oversight (4 variables)*
3. *AC assurance effectiveness oversight (4 variables)*
4. *AC structure and profile (3 variables)*

The second sub-section of Phase 2 included descriptive statistics on the factor variables formed from the CATPCA. The results of the descriptive statistics indicated that the majority of central government departments did not meet the expectation of disclosing all individual independent audit committee effectiveness variables, regardless of the fact that 13 of 14 variables must be disclosed in terms of legislation. Two of the three individual independent variables subsumed in the "AC structure and profile" factor variable were disclosed by almost all the departments.

The following four hypotheses were developed using the factor variables as inputs (independent variables):

H_1 There is a positive association between AC statutory reporting oversight and an unqualified opinion with no findings.

H_2 There is a positive association between AC risk and control oversight and an unqualified opinion with no findings.

H_3 There is a positive association between AC assurance effectiveness oversight and an unqualified opinion with no findings.

H_4 There is a positive association between AC structure and profile and an unqualified opinion with no findings.

In Phase 3, the results of multivariate ordinal logistic regression were presented and interpreted. The summary of the results is discussed in the next section, indicating how the primary objective of this study was addressed and achieved.

5.3 PRIMARY RESEARCH OBJECTIVE AND SUMMARY OF RESULTS

This section summarises how the results meet the primary objective of this study, namely:

To determine the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed in South African central government departments.

To achieve the primary objective, four hypotheses were developed from initial data analysis and tested during further data analysis. All four hypotheses revealed at least some probability of positive association between disclosures of audit committee effectiveness variables and an unqualified opinion with no findings. Only one of the factor variables, namely “AC structure and profile” had a statistically significant positive association between disclosures of the subsumed audit committee effectiveness variables and an unqualified opinion with no findings. The other three factor variables, namely “AC statutory reporting oversight”, “AC risk and control oversight” and “AC assurance effectiveness oversight” did not have a statistical significant relation, but

upon reviewing the confidence intervals had some probability of a positive association between disclosures of audit committee effectiveness variables and an unqualified opinion with no findings.

Overall, the results of this study indicated that all the factor variables could be predictors of the type of external audit opinion expressed. The results of this study are important as there is currently no study that has statistically considered the impact of all the potential audit committee effectiveness variables (independent variables) on the external audit opinion expressed, as a proxy of financial reporting quality, in the South African central government departments.

5.4 LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

This study used a purposive sampling approach to select departments within the South African central government, therefore, the results cannot be generalised to other audit committees. Future studies could use statistical sampling techniques to achieve generalisable results. This study focused on the disclosure of audit committee effectiveness variables based on the King III Code (2009a) recommended practices, which was the relevant governance code at the time of data analysis. Future studies could investigate the relation between the disclosure of audit committee effectiveness variables based on King IV recommended practices.

In Phase 1 of data analysis, the study identified 22 audit committee effectiveness variables which were not disclosed by any of the central government departments, two variables which were disclosed by less than 2% of the departments, and 11 variables which were disclosed by 97.8% of the departments. As these variables had no statistically significant variation, they were not analysed further. Future studies could address these variables.

5.5 RECOMMENDATIONS FOR CENTRAL GOVERNMENT

The results of this study indicated that disclosures of the audit committee effectiveness variables in the annual reports of central government departments are not in

compliance with the requirements of the PFMA and National Treasury Regulations. Moreover, the absent disclosure predicts the potential for less favourable external audit opinions, thus decreasing financial reporting quality. The main recommendations arising from this study are thus as follows:

- The National Treasury should assist and oversee:
  - Management's implementation of financial reporting processes aimed at meeting the legal disclosure requirements stipulated in the PFMA and National Treasury Regulations for audit committees.
  - The National Treasury should align their disclosure templates to include all legal disclosures for audit committees.
  - The National Treasury's oversight of management's performance should address adherence to legal disclosure requirements for audit committees.
- The audit committee should acquire training when needed about their oversight and reporting responsibilities of financial reporting and assurance processes.

5.6 CONCLUSION

This study investigated the relation between disclosed audit committee effectiveness variables and the external audit opinion expressed, as a proxy of financial reporting quality, in the South African central government departments. A positive relation was found between increased disclosure of audit committee effectiveness variables and an unqualified opinion with no findings. This implies that the disclosure of audit committee effectiveness variables predicted the type of external audit opinion expressed. Overall, the results indicated that departments with more complete disclosures of audit committee effectiveness variables were more likely to obtain an unqualified opinion with no findings.

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APPENDIX A: KING III CODE RECOMMENDED AUDIT COMMITTEE EFFECTIVENESS VARIABLES CODED DURING CONTENT ANALYSIS OF ANNUAL REPORTS

No	King III Code: Recommended practices	Recommended practice number	Aspect coded during content analysis of annual reports
Principle 3.1			
1	Listed and state-owned companies must establish an audit committee	3.1.1	Existence of the audit committee
2	All other companies should establish an audit committee and define its composition, purpose and duties in the memorandum of incorporation	3.1.2	Existence of the audit committee
3	The board should approve the audit committee's terms of reference	3.1.3	Approval of terms of reference
4	The audit committee should meet as often as is necessary to fulfil its functions but at least twice a year	3.1.4	Number of audit committee meetings
5	The audit committee should meet with internal auditors at least once a year without management	3.1.5	Meetings between the audit committee and internal audit take place
6	The audit committee should meet with external auditors at least once a year without management	3.1.5	Meetings between the audit committee and external audit take place
Principle 3.2			
7	All the members of the audit committee should be independent non-executive directors - for public sector the requirement is the majority of audit committee members should not be employed in the puplic sector	3.2.1 (Public sector: RSA 1999: Section 77(a) (ii))	Internal or external denoted next to each audit committee member's name
8	The audit committee should consist of at least three members	3.2.2	Number of audit committee members

9	The chairman of the board should not be the chairman of the audit committee	3.2.3	Internal or external denoted next to the name of the audit committee chair
10	The audit committee collectively should have sufficient qualifications and experience to fulfil its duties	3.2.4	At least one member with an accounting related professional qualification
11	The audit committee members should keep up-to-date with the developments affecting the required skill-set.	3.2.5	Audit committee workshops attended / professional designations which imply a continuing professional development requirement
12	The audit committee should be permitted to consult with the specialist or consultants subject to board approval process	3.2.6	Statement specifying consultation / outsourcing by audit committee
13	The board must fill any vacancies on the audit committee	3.2.7 (Public sector: RSA 2005: Section 3.1.2)	Statement that the accounting officer in consultation with the executive authority fills vacancies
Principle 3.3			
14	The board should elect the chair of the audit committee	3.3.1 (Public sector: RSA 2005: Section 3.1.2)	Accounting officer in consultation with the executive authority appointed the chair of the audit committee
15	The chair of the audit committee should participate in setting and agreeing the agenda of the committee	3.3.2	Statement specifying the chair's setting of the agenda
16	The chair of the audit committee should be present at the annual general meeting	3.3.3	Coded as -1 as this requirement does not apply to the public sector[i]
Principle 3.4			

17	The audit committee should have regard to all factors and risks that may impact on the integrity of the integrated report	3.4.1	Coded as -1 as integrated reports are not required in the public sector
18	The audit committee reviews and comments on the financial statements included in the integrated report	3.4.2	Statement that the audit committee reviewed / evaluated / commented on the annual report
19	The audit committee should review the disclosure of sustainability issues in the integrated report to ensure that it is reliable and does not conflict with the financial information	3.4.3	Coded as -1 as this requirement does not apply to the public sector
20	The audit committee should recommend to the board to engage an external assurance provider on material sustainability issues	3.4.4	Coded as -1 as this requirement does not apply to the public sector
21	The audit committee should consider the need to issue interim results	3.4.5	Coded as -1 as this requirement does not apply to the public sector
22	The audit committee should review the content of the summarised information.	3.4.6	Coded as -1 as this requirement does not apply to the public sector
23	The audit committee should engage the external auditors to provide assurance on the summarised information.	3.4.7	Coded as -1 as this requirement does not apply to the public sector
Principle 3.5			
24	The audit committee should ensure that the combined assurance received is appropriate to address all the significant risks facing the company.	3.5.1	Statement about combined assurance
25	The relationship between the external assurance providers and the company should be monitored by the audit committee.	3.5.2	Statement that the audit committee monitors external assurance providers

Principle 3.6			
26	Every year a review of the finance function should be performed by the audit committee.	3.6.1	Coded as -1 as this requirement does not apply to the public sector
27	The results of the review (of the finance function) should be disclosed in the integrated report.	3.6.2	Coded as -1 as this requirement does not apply to the public sector
Principle 3.7			
28	The audit committee is responsible for the appointment and/or dismissal of the chief audit executive.	3.7.1	Statement that the audit committee appoints / dismisses the chief audit executive / internal audit head
29	The audit committee is responsible for the performance assessment of the chief audit executive.	3.7.1	Statement that the audit committee assesses the performance of the chief audit executive / internal audit head
30	The audit committee should approve the internal audit plan	3.7.2	Statement that the audit committee approved the internal audit plan
31	The audit committee ensures that the internal audit function is subject to independent quality review as and when the committee determines it appropriate	3.7.3	Statement that the audit committee requires an independent quality review of the internal audit function
Principle 3.8			
32	The charter of the audit committee should set out its responsibility regarding risk management	3.8.1	Statement explaining the audit committee's risk management oversight
33	The audit committee should specifically have oversight of: financial reporting risks	3.8.2.1	Statement explaining the audit committee's financial reporting risk oversight

34	The audit committee should specifically have oversight of: internal financial controls	3.8.2.2	Statement explaining the audit committee's internal financial controls oversight
35	The audit committee should specifically have oversight of: fraud risks as it relates to financial reporting	3.8.2.3	Statement explaining the audit committee's fraud, risk pertaining to financial reporting oversight
36	The audit committee should specifically have oversight of: information technology as it relates to financial reporting	3.8.2.4	Statement explaining the audit committee's information technology, pertaining to financial reporting oversight
Principle 3.9.1			
37	The audit committee: must nominate the external auditors for appointment	3.9.1	Coded as -1 as this requirement does not apply to the public sector
38	The audit committee must approve the terms of engagement and remuneration of external auditor	3.9.2	Coded as -1 as this requirement does not apply to the public sector
39	The audit committee must monitor and report on independence of the external auditor	3.9.3	Statement explaining that the audit committee monitors and reports on the independence of the external auditors
40	The audit committee must define policy for non-audit services by the external auditors and must approve the contracts for non-audit services	3.9.4	Coded as -1 as this requirement does not apply to the public sector
41	The audit committee should be informed of reportable irregularities identified and reported on by external auditor	3.9.5	Statement explaining that the external auditors report reportable irregularities to the audit committee
42	The audit committee should review the quality and effectiveness of external audit process	3.9.6	Statement explaining that the audit committee reviews the external audit process and quality
Principle 3.10			

43	The audit committee should report to the board on its statutory duties and duties assigned to it by the board	3.10.1	Statement explaining that the audit committee reports to the executive authority on its duties
44	The audit committee must report to the shareholders on its statutory duties.	3.10.2.1	Statement in the annual report explaining the audit committee's duties
45	The audit committee should report to the shareholders on its statutory duties: if the committee is satisfied with the independence of the external auditors	3.10.2.2	Statement in the annual report explaining the audit committee's satisfaction with the independence of the external auditors
46	The audit committee should report to the shareholders on its statutory duties: audit committee's view on financial statements and accounting practices	3.10.2.3	Statement in the annual report explaining the audit committee's view on financial statements and accounting practices
47	The audit committee should report to the shareholders on its statutory duties: whether internal financial controls are effective	3.10.2.4	Statement in the annual report explaining the audit committee's view on the effectiveness of internal financial controls
48	The audit committee provides a summary of its role and details on its composition, number of meetings and activities in the integrated report	3.10.3	Table presenting the details of the list of audit committee members, their qualifications, number of meetings and attendance thereof by each member
49	The audit committee should recommend the integrated report for approval by the board	3.10.4	Coded as -1 as this requirement does not apply to the public sector

Source: Adapted from (IODSA 2009a: Principle 3.1-3.10)

[i] Some audit committee effectiveness variables in the King III Code do not apply to the public sector. However, they were retained in this study's analysis for the sake of considering a complete list of best practice recommended practices.